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FIRE ENGINEERING

The Journal of the Fire Protection Profession Since 1877

NOVEMBER, 1949

Part of Million Dollar Purchase of New Fire Apparatus Recently Delivered to Philadelphia, Pa. In This Group Are Twenty Pumpers, Twenty Combination Cars, Nine Aerials and One Rescue Squad Car

A CASE - SHEPPERD - MANN PUBLICATION

SAVING LIVES

The Biggest "Kick" in Fire Fighting!

It's not only your own firemen and other smoke victims who may need dependable Emerson resuscitation on a moment's notice.

How about those calls from a riverbank — where seconds count and lives may depend on the quick application of your portable resuscitator?

Then there are gas poisoning cases (sometimes several at once), accidents in factories, automobiles, or somebody's home, and even hospital calls. They *all* look to the Fire Department for help.

Thousands of progressive Departments protect their communities with

EMERSON RESUSCITATORS

They are simple to operate, safe to use, and dependable.

May We Demonstrate This Marvel of Modern Medicine to You?

"Simplest and Safest"

J. H. EMERSON CO.

22 Cottage Park Ave. Cambridge 40, Mass.

. . . *avoid* WINTER PARALYSIS

Winter's sleet and snow will soon be driving people indoors behind insulated walls and sealed storm windows. Your alarm siren must not only penetrate these obstacles but also compete with favorite radio programs.

Now more than ever your community requires a loud dependable alarm as the nerve center of your protection system. Be sure your signal is dependable. Test it daily as a time signal. Check now to be sure your signal is adequate for the winter season.

Now is the time to replace the old, worn-out signal with a new all-powerful, dependable Federal Siren, precision-built in weather-proof housing and durably constructed for extra long life. Federal Vertical Sirens are built with motors especially designed for alarm service. They are exceptional in pick-up, tone power and general performance. Don't risk lives with an inadequate alarm when a moderate expenditure will replace it with a dependable world-renowned Federal Vertical Siren alarm system. A variety of standard models is available. Write for literature.

FEDERAL ENTERPRISES, INC.

FORMERLY: FEDERAL ELECTRIC COMPANY, INC.

8702 SOUTH STATE STREET • CHICAGO 19, ILLINOIS

FIRE ENGINEERING

A Consolidation of FIRE AND WATER ENGINEERING, THE FIRE ENGINEER, FIRE PROTECTION *and* FIRE SERVICE

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FRED SHEPPERD
Editor

ROI B. WOOLLEY
Assistant Editor

Telling 'em and Telling 'em

THE dictum of the newspaper editor is *"tell 'em you're going to tell 'em. Tell 'em. And tell 'em you've told 'em."* Which, to a certain extent, is the axiom of the publishers of FIRE ENGINEERING.

● Take the advent of water fog, for example. FIRE ENGINEERING told its readers it was going to tell 'em about fog. Then it told 'em—plenty. Now FIRE ENGINEERING is telling 'em that it told 'em.

● Years ago FIRE ENGINEERING pioneered the automotive fire apparatus, despite the snickers, sniffs and sneers of scoffers and skeptics. But repeated telling 'em triumphed then—just as it has since done with water fog—and as it is doing with wet water, and "coordinated attack."

● That's the sort of publishing *leadership* that builds staunch *readership*—that shapes trends, policies and plans of the fire service. As evidence, here's what a fire chief from Delaware County, N. Y., writes:

"I am interested in your article, 'coordinated attack,' and would like to know how long this series of articles will continue. These are the best I have read yet, and our department, as I am sure many others do, is studying and putting into operation as many of these practices as possible."

● Sometimes the editorial "mills of the Gods grind slowly—but they grind exceeding fine!"

The Publishers

FIRE ENGINEERING

The Journal of the Fire Profession since 1877; published on the fifteenth of each month by Case-Shepperd-Mann Publishing Corp., 24 West 40th St., New York 18, N. Y., also publishers of *Water Works Engineering, Sewage Works Engineering*, etc. ¶Subscription price: U. S., Latin America and Canada, $3.00 a year; Foreign, $4.00; Single copies, 35c. ¶Member of Audit Bureau of Circulations and Associated Business Papers, Inc. ¶Entered as second-class matter April 15, 1929, at the Post Office at New York, N. Y., under Act of March 3, 1879.

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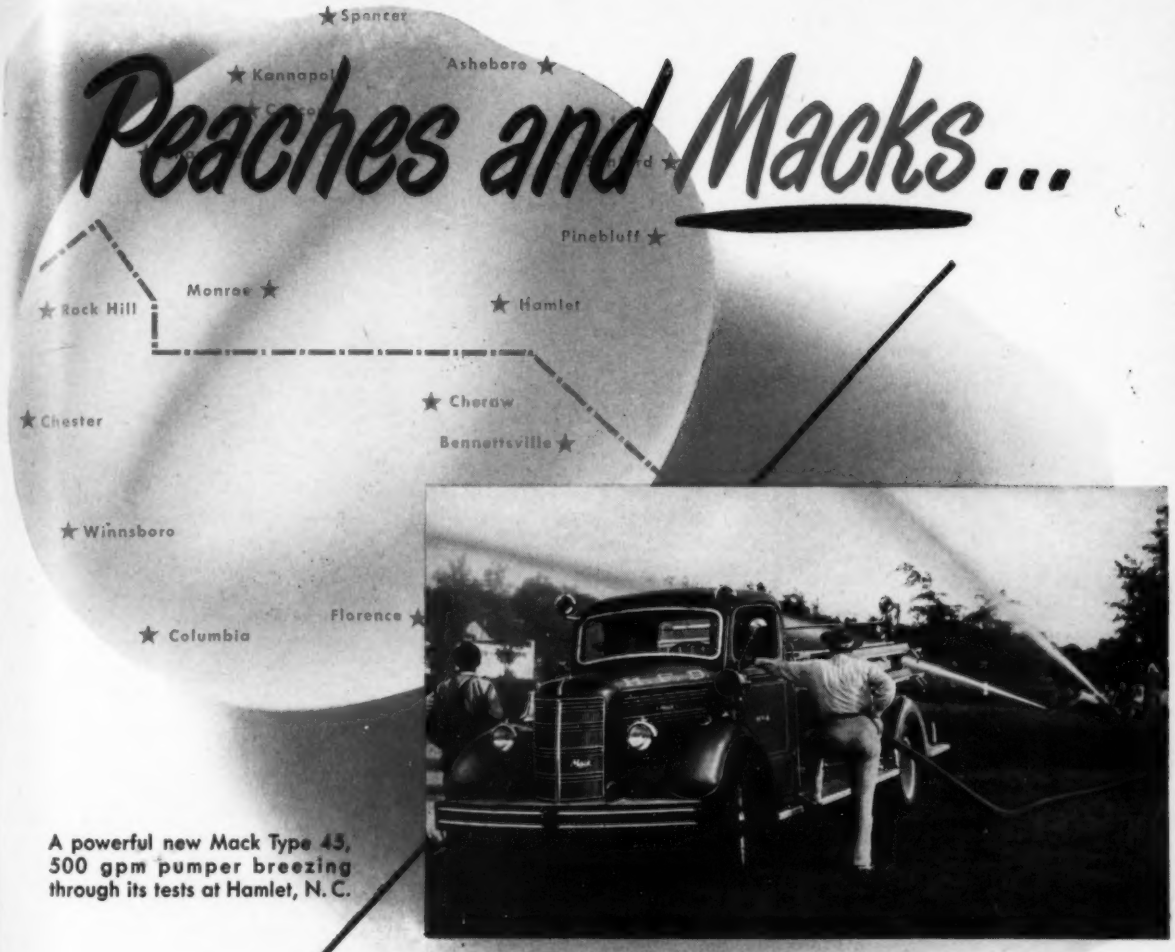
A CASE-SHEPPERD-MANN PUBLICATION
"Specialized Leadership"

Peaches and Macks...



A powerful new Mack Type 45, 500 gpm pumper breezing through its tests at Hamlet, N. C.

the *pick* of the Carolinas

● Throughout this famous peach growing section of North and South Carolina you'll find they're all saying *"Mack's a peach of a fire engine."* The sixteen "Sandhill" communities that have recently bought Macks acclaim them as the best-performing and most dependable apparatus in the area.

There is a reason why Macks rate this praise. All the know-why and know-how of the largest research, engineering and manufacturing facilities in the field are built into every Mack apparatus. That's why they are the pride of more than 1000 departments from coast to coast who have *"Modernized with Macks."*

Mack fire apparatus

7798

MACK MANUFACTURING CORPORATION
FIRE APPARATUS DIVISION
Long Island City 1, New York

Factory branches and dealers for parts and service in all principal cities. In Canada: Mack Trucks of Canada, Ltd.

TRIPLE-COMBINATION PUMPERS—500 TO 2000 GPM . . . SQUAD AND HOSE CARS . . . AERIAL, CITY SERVICE AND QUADRUPLE COMBINATION LADDER TRUCKS

"Aluminum Ladders the most efficient"

says Chief Richter of Batavia, Illinois

"In our department we have, and use, aluminum ladders in lengths that run from a ten foot folding ladder to a fifty foot extension ladder.

"We consider aluminum ladders to be the most efficient type of ladder. Two of the reasons for this are: first, the small amount of time that it is necessary to spend on the ladders for maintenance. No slivers to sand, no varnishing, etc. The second and most important reason is: the light weight of an aluminum ladder. In departments that operate with reduced man power this is a very important item."

—F. C. Richter, Chief
Batavia Fire Department

New fire truck at Batavia, Illinois—built by American-La France and equipped with ALCO-LITE Aluminum Ladders.

Specify **Alco-Lite** *Aluminum Ladders when you order new fire engines . . .*

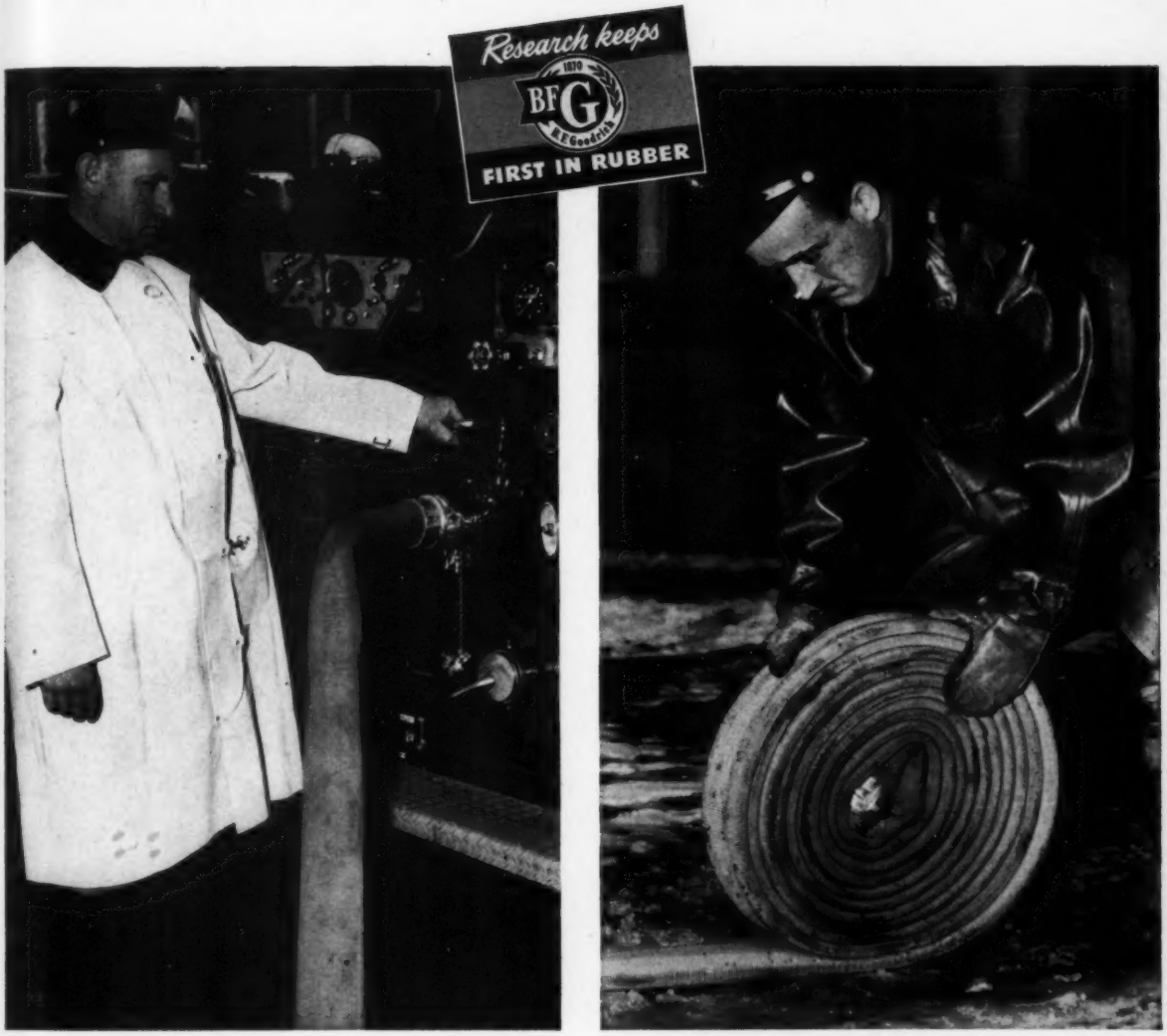
Why wait until you replace your present ladders before you begin to save with ALCO-LITE Aluminum Ladders? Specify ALCO-LITE ladders as *original equipment* on new fire trucks and begin to save *immediately.* The experience of Chief Richter with ALCO-LITE Aluminum Ladders is typical of that of hundreds of fire chiefs throughout the country. Insist on ALCO-LITE—the original Aluminum Ladder.

ALUMINUM LADDER
COMPANY
200 CARBIS ST., WORTHINGTON, PA.
IN CANADA: C. E. HICKEY & SONS, LTD., HAMILTON, ONTARIO

The Original Manufacturer of Aluminum Fire Ladders

SINGLE WALL LADDERS • LIGHT-DUTY EXTENSION LADDERS • HEAVY-DUTY 2, 3 AND 4-SECTION EXTENSION LADDERS • ROOF LADDERS • FOLDING LADDERS • PIKE POLES

CATALOG ON REQUEST



Two good reasons why fire hose needs B.F.Goodrich end protection

THE chief is about to open a water gate. The fireman is rolling up hose after a fire. Both operations are hard on hose, especially at the ends, where most hose fails by kinking and cracking. Here are two good reasons why B.F.Goodrich armors fire hose with its exclusive, patented end protection.

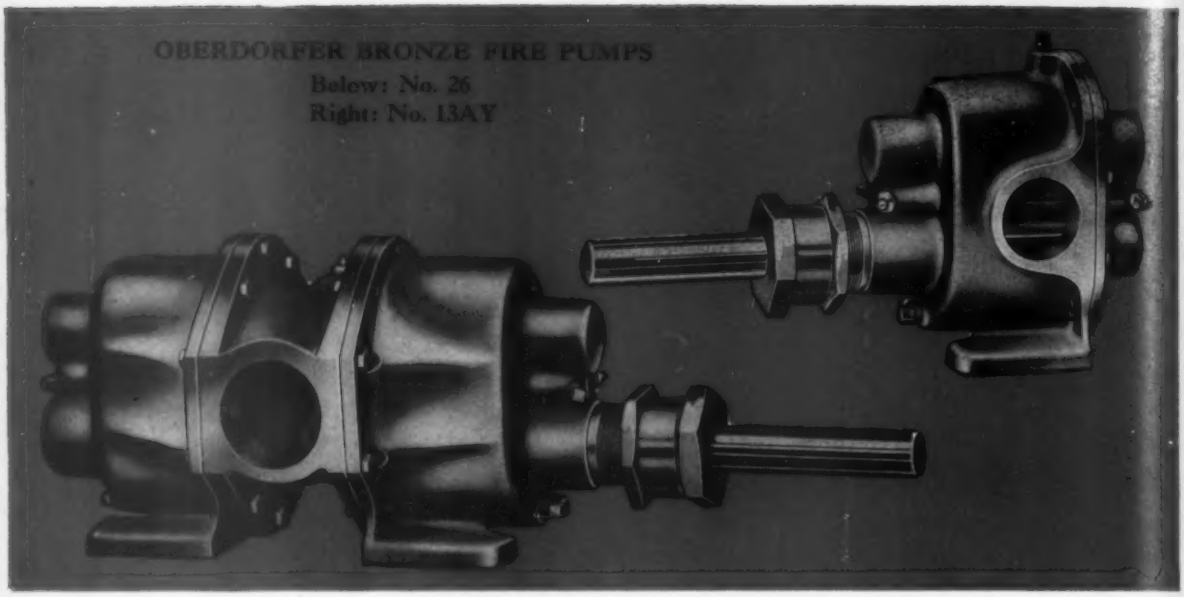
Doubles tube strength at ends — End protection consists of an additional ply of hard-woven cotton cords fortifying the last 12 inches of the tube. It more than doubles hose strength in the coupling area, makes the whole hose last years longer. So, when the coupling ring is expanded; when hose is being hooked up to water or water is pulsing through it; when it is being coiled — B.F.Goodrich end protection strengthens the tube 100% in the area under strain.

Plus jacket strength — A stronger jacket adds strength to this fire hose too. Woven of more (but smaller) cords, it has greater strength with no added bulk. Weak spots are avoided by prestretching and weaving under uniform tension. The Hydroseal process makes the jacket resist freezing, waterlogging, mildew and rotting.

Couples better — All couplings make a tighter seal with B.F.Goodrich end-protected hose, because of the extra thickness of ply material at each end. Hose is available with all standard couplings, standard or special threads.

End protection is a fully patented "exclusive", found only on B.F.Goodrich fire hose. And it costs *not one cent more* than ordinary fire hose. Ask to see it at your local distributor. *The B.F.Goodrich Company, Industrial and General Products Division, Akron, O.*

Fire Hose
BY
B.F.Goodrich



An Oberdorfer Bronze Booster Pump + a wetting agent in your booster tank = modern fire fighting equipment at its best

Whether your community is under 100 population, or over 1,000,000, you cannot afford to be without this combination.

Pump No.	Pump Shaft RPM	Pounds Pressure	Hose Length and Size	Dry Suction Lift in Feet	Volume in Gal. per Minute
13	1600	120	500′-1½″	15′	75
13	2000	100	500′-1½″	15′	100
26	1600	120	500′-1½″	15′	150

The #13 Oberdorfer Pump lists at $69.00; the #26 at $172.50. Both are corrosion-resistant all bronze construction with stainless steel shaft, assuring longer useful life than iron pumps costing far more.

These pumps are available to every reputable fire apparatus builder in the U. S. and Canada and through our agents everywhere.

OBERDORFER FOUNDRIES, INC., SYRACUSE, NEW YORK

EST. 1876

OBERDORFER

Booster Pumps

ALFCO FIRE EXTINGUISHERS KILL ALL TYPES OF BLAZES

For any blaze which a portable unit can extinguish, American-LaFrance-Foamite has the right fire extinguisher — expertly designed and ruggedly constructed for long life and efficient service. From the No. 0 1-qt. Fire-Gun to the 2½-gal. Foamite Model 5F-FD-1 or the new Alfco Model 30 Dry Chemical unit, the famous Alfco line of fire protection equipment meets the most rigorous tests of fire-fighting effectiveness in practical use. For complete information on Alfco Fire Extinguishers, consult your nearest American-LaFrance-Foamite representative, or write directly to us.

Above: left, 2½-gal. Foamite Model 5F-FD-1 Extinguisher; center, Alfco Carbon Dioxide Fire Extinguishers—L. to R.: 2½ lbs., 3½ lbs., 15 lbs., 20 lbs., 10 lbs., 5 lbs. rated capacities; right, 2½-gal. Model 5S-FD-1 Soda-Acid Extinguisher.

Lower Left: Alfco Model 30 Dry Chemical Fire Extinguisher with special Running Board Bracket.

Lower Right: Alfco Fire-Guns; l. to r., No.0, 1-qt., No. 2, 1½-qt., No. 4 1-gal. Stored Pressure Type.

With 2nd Century of Leadership in FIRE PROTECTION

AMERICAN-LAFRANCE-FOAMITE Corporation

ELMIRA · NEW YORK · U.S.A.

ALFCO

SMOKEY SAYS:

"WHAT A CHARACTER!"

- and that's a compliment.

In the badge business the figures that make up the design are called characters - and they are something to look at when judging quality. Clean and sharp die work is the first requirement. Polishing to clean out the low spots and smooth down the rough ones is the second secret of fine work. Blackinton polishing is so thorough you, too, will say "What Characters," if you look them over. Always ask for BLACKINTON from your dealer.

DEALERS INVITED

Uniform houses, suppliers, etc. — let us show you the advantages of handling Blackinton badges.

V. H. Blackinton & CO., INC.

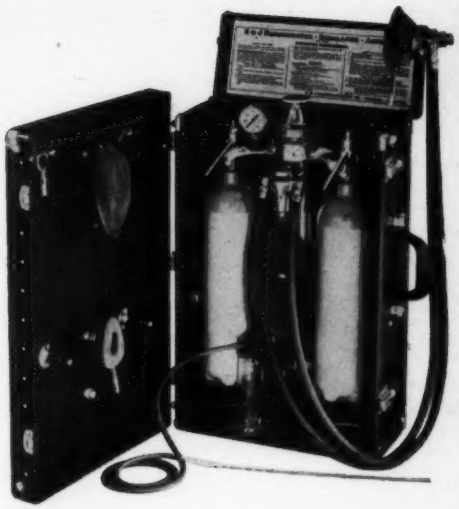
THE OLDEST NAME IN INSIGNIA

ESTABLISHED 1852

ATTLEBORO FALLS, MASSACHUSETTS

"Without our new E & J my 'boys' would certainly have had a losing case!"

recently wrote E. C. Kuehner, Chief, City of Chehalis, Washington, Fire department, following the first use of their E & J Resuscitator **donated only a few weeks earlier by the Chehalis Elks Lodge.**



RESUSCITATOR • ASPIRATOR • INHALATOR

Fire Chief Kuehner (center) and rescue squad with their new E & J triple Resuscitator

Changing the "losing case" into a successful life-saving achievement happens with gratifying regularity when E & J Resuscitators are used.

The reason is simple. *In every possible way* the E & J is automatic, with no time lost making complicated adjustments or pressure selections based on an estimate of the victim's lung size or condition. The E & J *automatically* produces exact positive and negative pressures absolutely safe and correct for adult or tiny infant, *automatically* adjusts volume to any lung size, *automatically* signals if the upper air passages are obstructed, *automatically* signals the moment natural breathing is resumed. There is no chance of confusion or doubt, hence the operator acts surely and swiftly and with greater effectiveness.

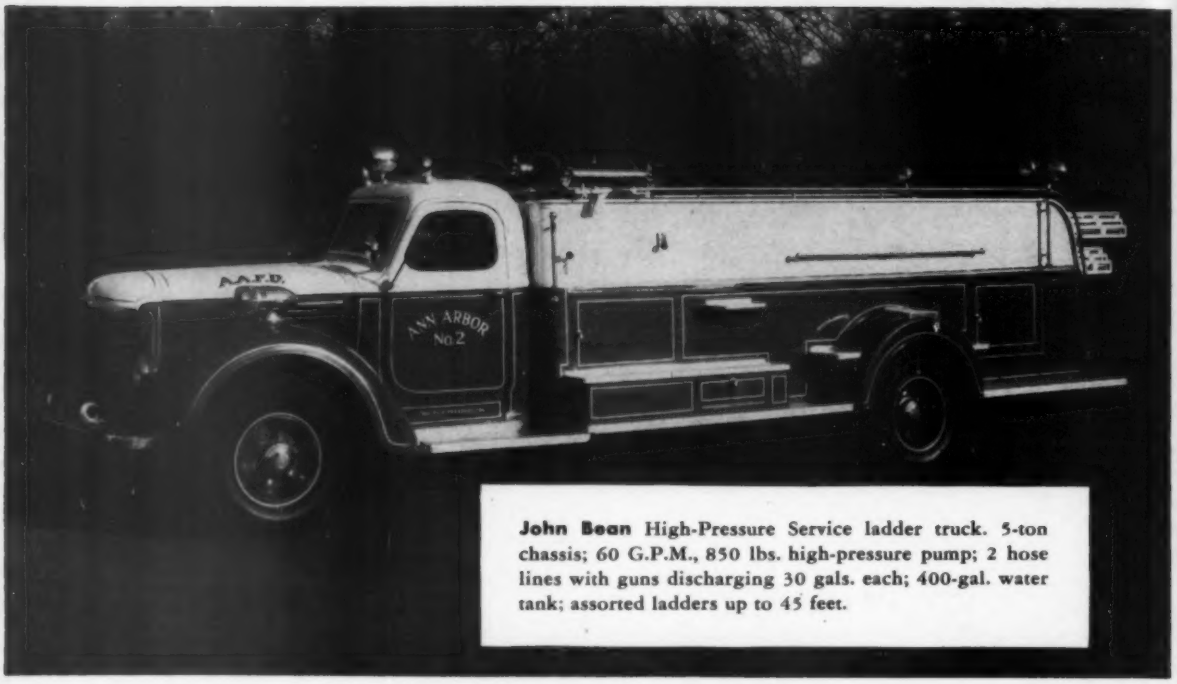
See for yourself the complete simplicity, safety and dependability of E & J Resuscitators. A demonstration right in your Department is yours for the asking. So is the fact-filled folder, *Saving Human Lives.* Right now, while you're thinking of it, write for either to E & J, Dept. K-10, at the address shown.

IS YOUR BUDGET S-T-R-E-T-C-H-E-D?

Let your community *share in the satisfaction* of saving human lives . . . *their* lives, perhaps . . . by obtaining modern E & J Resuscitators for your Department through fund-raising programs. **That's how Chehalis got the E&J Resuscitator pictured above.**

It's easy when you use the popular E&J money-raising plan that has enabled Departments from coast to coast to be adequately equipped. Write for complete details today, *now!* No obligation, of course.

E & J MANUFACTURING CO.
Glendale 1, California



John Bean High-Pressure Service ladder truck. 5-ton chassis; 60 G.P.M., 850 lbs. high-pressure pump; 2 hose lines with guns discharging 30 gals. each; 400-gal. water tank; assorted ladders up to 45 feet.

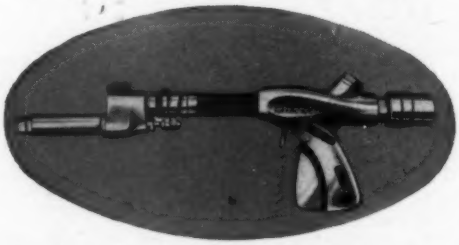
1000 fire chiefs can't be wrong!

More than 1000 fire chiefs are using John Bean High-Pressure Fog Fire Fighters for *first line fire fighting.* Their success and results are substantial proof of every Bean claim.

ONLY BEAN DOES THE COMPLETE JOB

John Bean Fog Fire Fighters . . .

1. **Go into action immediately on arrival**
2. **Eliminate almost all water damage**
3. **Require less than 10% as much water**
4. **Operate simply, both at truck and fire**
5. **Last longer because they are built complete in the Bean factory by experienced high-pressure engineers**
6. **Provide positive displacement slow-speed pump and slow engine speed. No destructive racing of engine**
7. **Carry the patented Bean Fog Gun, unquestioned for superiority in design and efficiency**



THE PATENTED BEAN FOG GUN. Operated at high water pressure, it gives every type of fog pattern for fire fighting. One man can operate it easily.

BEAN *Original* HIGH-PRESSURE FOG FIRE FIGHTER

CAN BE MOUNTED ON MOST STANDARD TRUCK CHASSIS

FOOD MACHINERY AND CHEMICAL CORPORATION

JOHN BEAN DIVISION, DEPT. 126, LANSING 4, MICH. • JOHN BEAN DIVISION (WESTERN), 409 JULIAN ST., SAN JOSE, CALIF.

BUILDERS OF BEAN HIGH-PRESSURE PUMPS FOR OVER 60 YEARS

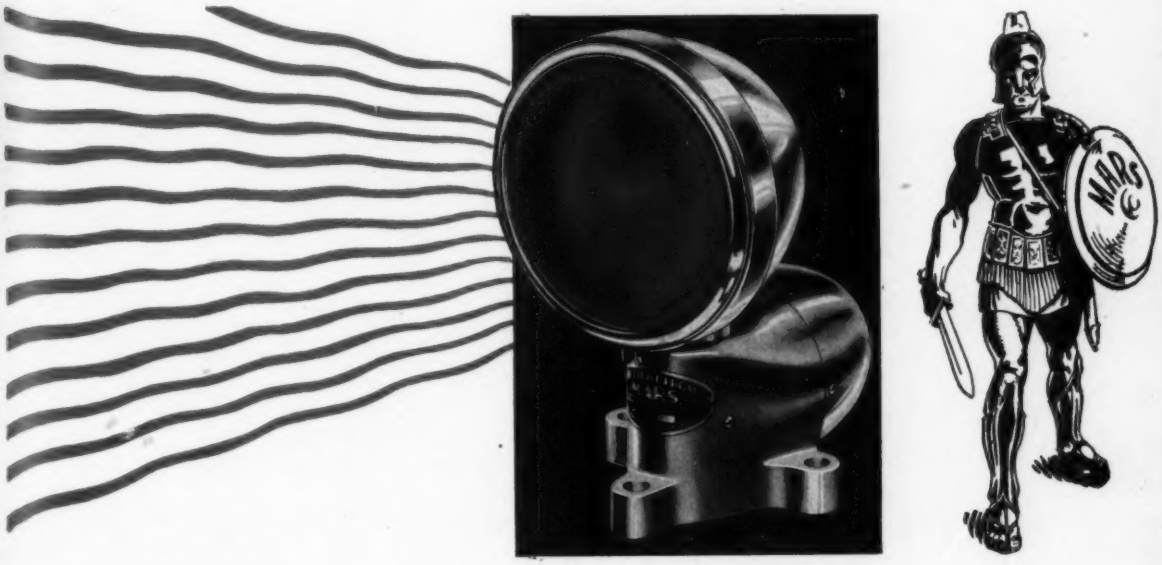
DID YOU KNOW YOU CAN BUY

A WARNING SIGNAL LIGHT THAT WILL LAST AS LONG AS YOUR FIRE APPARATUS?

THE MARS SIGNAL LIGHT

IS IN USE ON THOUSANDS OF FIRE APPARATUS AND OFFICERS' CARS
FROM COAST TO COAST

It Is Fully Guaranteed for Five Years
Mars Has Never Failed to Back Up This Guarantee and Never Will'



Motorists in cities and villages everywhere recognize THIS light.

It is never mistaken for a Neon Sign or a Christmas Tree ornament!

Its powerful figure 8 beam of red light flashes a mile ahead of the apparatus from building line to building line—and hundreds of feet into the air.

It flashes through windows and reflects in rear vision mirrors of cars ahead, warning motorists that fire apparatus is behind them.

THERE ISN'T ANOTHER LIGHT LIKE IT

IF YOU ARE NOT USING MARS SIGNAL LIGHTS BUY ONE.
TRY IT AND YOU'RE SURE TO WANT THEM FOR ALL YOUR
APPARATUS AND OFFICERS' CARS.

IMMEDIATE DELIVERY

MARS SIGNAL LIGHT CO.

5737 W. DIVISION ST.
CHICAGO, ILL.

Insist on MARS when you order New Equipment — Install it on Present Equipment

IT WILL LAST AS LONG AS YOUR APPARATUS
ALSO USED BY MANY OF AMERICA'S LEADING RAILROADS

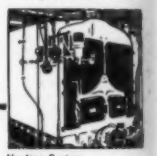
AUTOMATIC HEATING AND INDUSTRIAL PROCESS SUPERVISORY SERVICE

Automatic Fire Detection and Alarm Service

Sprinkler Supervisory and Waterflow Alarm Service

Burglar Alarm Service

Industrial Process Supervisory Service


Heating System Supervisory Service

Automatic Smoke Detection and Alarm Service

Holdup Alarm Service

Watchman's Reporting Service

Manual Fire Alarm Service

ADT Automatic Fire and Burglary Protection often is supplemented by Central Station Automatic supervision of heating systems and industrial processes to accomplish complete, dependable automatic plant protection.

These services give immediate notification at the ADT Central Station of the existence of abnormal conditions and make it possible to effect prompt corrective action.

Heating system supervision, for coal, gas or oil burning systems, includes automatic detection and reporting of such conditions as low water levels; high or low steam pressures; high or low temperatures of air or water and flame failures.

The same type of automatic supervision can be applied to industrial processes. These include supervision of temperatures in cold storage areas, drying ovens and galvanizing baths, the continuity of paint mixing, pigment grinding and numerous other mechanical operations.

ADT representatives will be glad to show you how these services can be combined with other ADT Automatic Protection Services to provide better protection at less expense through modification of less effective but more costly protection measures.

In addition to the prompt and effective handling of alarms, ADT Services include the following fundamental features, without which there is little assurance that any protective system will function properly when an emergency arises:

• CONTINUOUS SUPERVISION • REGULAR INSPECTIONS AND TESTS • COMPLETE MAINTENANCE •

#4 in a series presenting the principal ADT Services for the protection of life and property.

Controlled Companies of **AMERICAN DISTRICT TELEGRAPH CO.** *155 Sixth Avenue, New York*
CENTRAL STATION OFFICES IN ALL PRINCIPAL CITIES OF THE UNITED STATES

ADT

Four Model 120T 1,000-gallon Triple Combination Ward LaFrance Pumpers, equipped with front suctions. Standing in picture are Trenton Fire Chief Thomas Phelan and John Duffy, Ward LaFrance distributor.

four pumpers for TRENTON

Trenton, N. J., the garden state capitol, recently added these four Ward LaFrance Pumpers to its fire department. Advanced engineering and dependable performance spell greater protection for Trenton whose famous citizen, engineer John Roebling, invented the wire-rope which made possible the Roebling-designed Brooklyn Bridge.

All over America, municipalities like Trenton have come to recognize Ward LaFrance, makers of the world-famous, war-proven M-1 Wrecker. The ease with which Ward LaFrance fire apparatus maneuvers through congested city streets — and over rugged country roads — has made them first choice everywhere. Every pumper offers the reserve horsepower so often needed for quick acceleration and hill climbing, plus a Waterous, famous since 1886, split housing pump . . . surplus gallonage that far exceeds its rated capacity . . . flat horizontal booster tank . . . exceptional hose capacity . . . and beautifully hand-rubbed lacquer paint finish.

It will pay you to investigate Ward LaFrance—choice of the nation's leading cities. Send for bulletins 75-85.

A few choice territories are still open. Write today for information.

Pumpers—Quads—City Service—Hose Wagons—Special Types—Rotary Gear—Single, 2 or 3 Stage Centrifugal Pumps available in various capacities.

WARD LaFRANCE TRUCK CORPORATION

Fire Apparatus Manufacturers for Over 30 Years

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Export:
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Elmira, N. Y., U. S. A.
Cable Address: "Wardtruck"

We shall appreciate your mentioning FIRE ENGINEERING *when writing advertisers*

The Original MIDWESTERN Yellow Striped Safety Coat Is Again Available . .

for Men of Action!

Here's Protection and Comfort in Your Hazardous Work of Safeguarding Life and Property Against FIRE!

Modern fire fighting calls for ***specialized*** protective clothing . . . clothing that safeguards the fireman's life on every run . . . clothing that enables him to use his equipment to the fullest advantage.

Every Midwestern product combines the thoughts and suggestions of practical Fire Chiefs and firemen from every section of the country . . . and every purchaser profits from years of Midwestern research and experience. That is why the famous Mackinaw Coat and other Midwestern clothing have embodied in their design every feature necessary for the protection and comfort of firemen.

In our vast selection of crude rubber materials you will find a type of fabric suitable for your climate and needs. The softness and flexibility in the high-grade materials used are your assurance of long time service and comfort. Many Fire Chiefs are now including Midwestern clothing in their regular yearly budget and, by placing your order early, you can be assured of this adequate protection when needed.

For complete information, have your Midwestern dealer show you our new garments now manufactured from crude rubber compounds. A letter to the factory will also bring you material samples for your inspection.

We now have available: White, Ivory and Brown crude rubber coats for Chiefs, Assistants and other officers; also all sizes short and ¾ length felt lined Firemen's boots for immediate shipment.

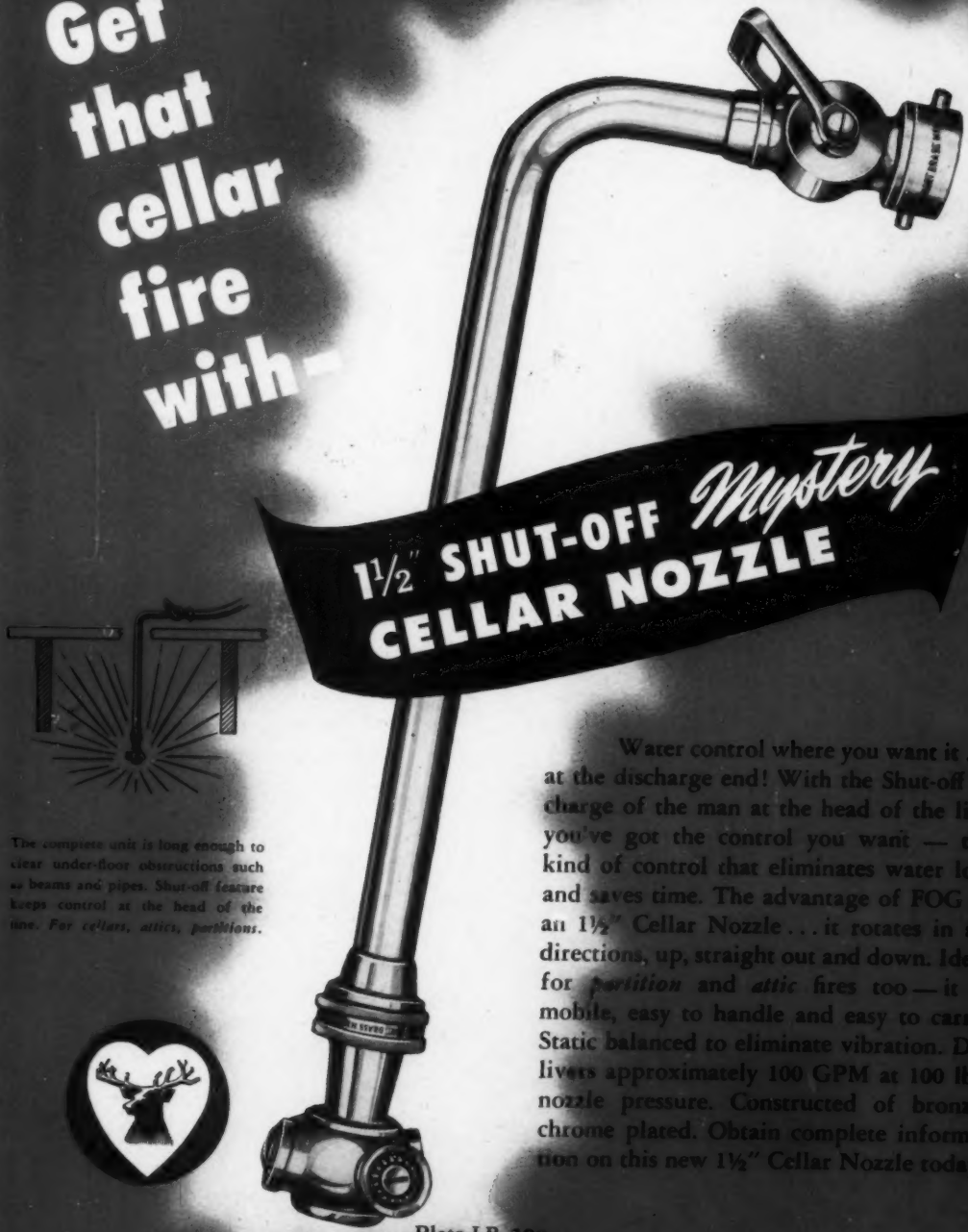
NONE GENUINE WITHOUT THIS TRADE MARK

MIDWESTERN MFG. CO., Mackinaw, Illinois

Manufacturers of the Famous **MACKINAW Coats**

Get that cellar fire with—

1½" SHUT-OFF *Mystery* CELLAR NOZZLE



The complete unit is long enough to clear under-floor obstructions such as beams and pipes. Shut-off feature keeps control at the head of the line. *For cellars, attics, partitions.*

Water control where you want it . . . at the discharge end! With the Shut-off in charge of the man at the head of the line you've got the control you want — the kind of control that eliminates water loss and saves time. The advantage of FOG in an 1½" Cellar Nozzle . . . it rotates in all directions, up, straight out and down. Ideal for *partition* and *attic* fires too — it is mobile, easy to handle and easy to carry. Static balanced to eliminate vibration. Delivers approximately 100 GPM at 100 lbs. nozzle pressure. Constructed of bronze, chrome plated. Obtain complete information on this new 1½" Cellar Nozzle today!

Plate LR 200

FOR COMPLETE INFORMATION WRITE

ELKHART BRASS MFG. CO., INC.

ELKHART INDIANA

A Truly Compact, Lightweight, Efficient

20 Lb. Size

DRY CHEMICAL EXTINGUISHER

Here is a powerful, remarkably efficient dry chemical extinguisher that is easy to use and looks good in any surroundings. Its extraordinary efficiency is the unique product of GENERAL engineering. All extinguishing agents are contained inside the beautiful, seamless drawn outer case, yet by simply unscrewing the cap, you can recharge the extinguisher yourself in a matter of minutes. Its extra light weight makes it easy to carry and handle—an important factor when fire must be fought quickly. Underwriters' approved and especially recommended for gasoline, oil, chemical, and electrical fires, it is equally useful indoors and out—ideal for motor vehicles.

GENERAL QUICKAID FIRE GUARD

THE GENERAL DETROIT CORP.

DETROIT 32, MICHIGAN

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this—

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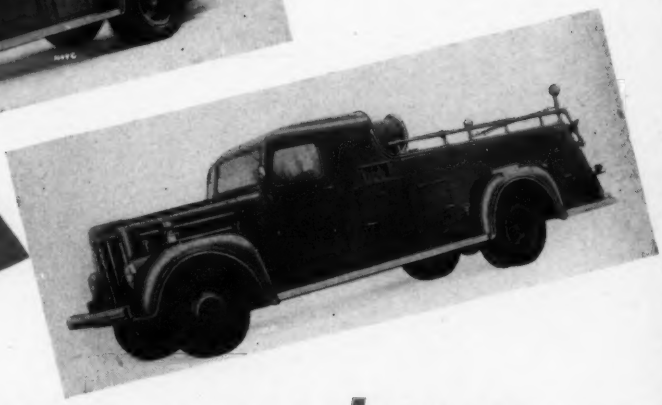

whichever you choose—

You can be absolutely sure that we can supply it. You can be sure, too, that you will get a piece of apparatus you can depend on—engineered and built by men who build nothing but fire apparatus—men who have been doing just that for three generations. We manufacture every type of apparatus you will need. Write for sound engineering counsel on any problem on fire apparatus.

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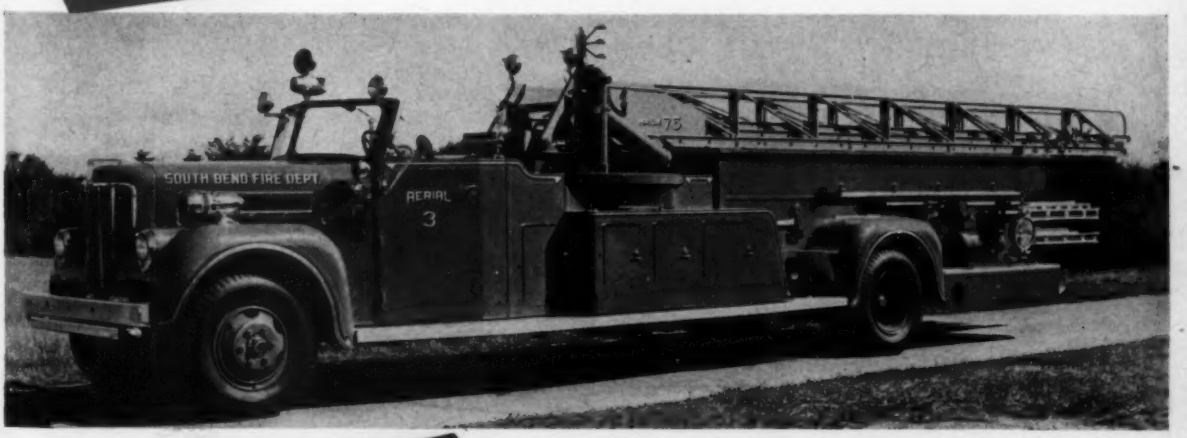

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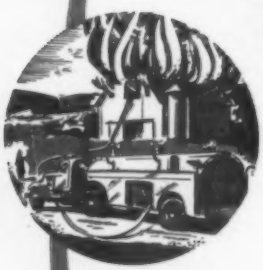
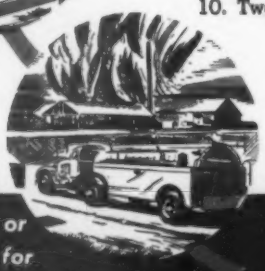
gives you a 2000 GALLON FIREFIGHTER





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. . . designed especially for suburban and rural communities with limited water supply

The new Smithco Firefighter delivers the goods. No rural or suburban community can afford to be without it. Only Smithco gives you a 2000 gallon carrier plus all these extra features.

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10. Two 1½" Mystery Fog Nozzles
11. One 1½" Siamese Connection
12. One 24' Aluminum Extension Ladder
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14. Two 15-pound CO_2 Extinguishers
15. One Pioneer Rack with Axe, Pick and Shovel
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RECOMMENDED TRACTOR—F7 or F8 Ford, WC-20T White or Equal

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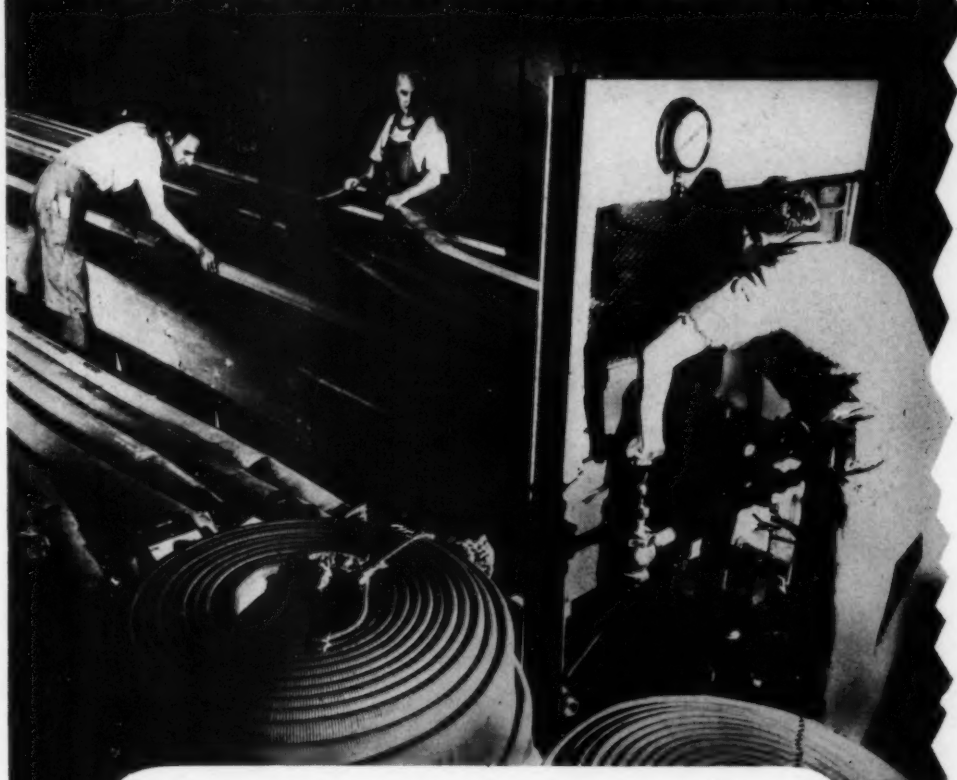

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Made of sturdy, resilient rubber tube, Quaker Fire Hose resists weather and deterioration. The tube is protected by heavy cotton yarn jackets that withstand constant abrasion and high pressure. Quaker's Modern Municipal easy-fold construction provides more compact storage allowing up to 1/3 additional footage in the truck bed.

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American Pumping Engines...

ADVANCED ENGINEERED FOR SERVICE

OUR 25 years of experience with pumping engine problems gives us the necessary background to assure you of dependable service.

BOTH midship and front mounted models are available, built on your favorite chassis, meeting all Underwriters' requirements.

Be Sure — Select The Best — Select American

Shown above is the Barton Super-fog gun in action. Mere finger pressure will give you powerful straight streams, long range fog streams, and billows of instant fog. All at lower, *safer* pressures than required by other fog systems.

STANDARD equipment includes such exclusive features as: frostproof outlet valve; frostproof single control drain system; electric re-wind hose reels; and the *unbeatable combination*—the Barton American fire pump and Barton Super-fog gun.

Write for additional information about Barton Super-fog and American Fire Apparatus pumping engines, or let our established sales representative call and assist you with your fire fighting problems.

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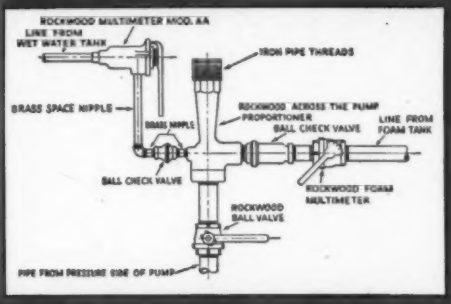
FIRE APPARATUS

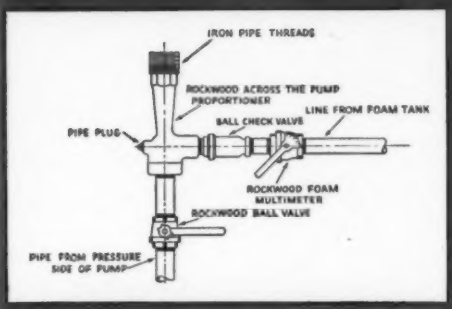
DIV. AMERICAN-MARSH PUMPS, INC.

BATTLE CREEK, MICHIGAN

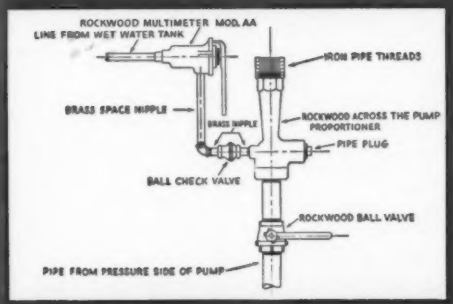
HOW TO AUTOMATICALLY FEED FOAM LIQUID OR WETTING AGENTS INTO YOUR FIRE HOSE LINES



1. Rockwood Across Pump Proportioner Model Dual B for FOAM and WET



2. Rockwood Across Pump Proportioner Model Dual B for FOAM ONLY



3. Rockwood Across Pump Proportioner Model Dual B for WET ONLY

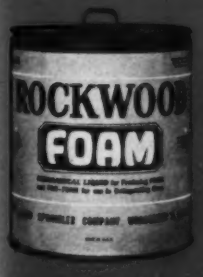
3 NEW ROCKWOOD AUTOMATIC PROPORTIONING UNITS THAT WILL PAY FOR THEMSELVES

This simple and most accurate way to feed FOAM liquid or Wetting agent into your fire hose lines is also the *least expensive* — and it is entirely *automatic*.

No longer is it necessary to pour these liquids into a booster tank in a hit or miss fashion. You can now use these only when you need them. A simple turn of a metering valve automatically mixes the right amount of Wetting agent or FOAM liquid with water — without guesswork.

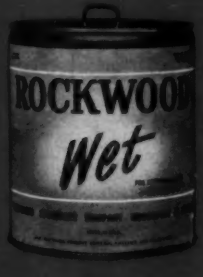
Here are three new Rockwood Automatic Proportioning units. One provides automatic proportioning for both FOAM liquid and Wetting agent, another is for FOAM liquid only and the third kit automatically proportions wetting agent only. All three kits are shown at left. They are known as the new type B Rockwood Across-the-Pump Proportioners.

If you are planning to buy a new fire truck, be sure to specify one of these new Rockwood proportioners. They can also be added to the fire trucks you now have in service. Write for complete operating and installation data and prices.



To put out fires faster and more economically use Rockwood Foam Liquid with the new Type FFF Rockwood Fog-FOAM Nozzle.

The most efficient way to apply a *wetting agent* to most fires is thru a type SG-48 Rockwood Triple-action WaterFOG Nozzle.



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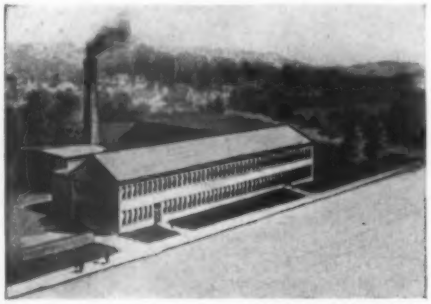
54 HARLOW STREET WORCESTER 5, MASSACHUSETTS

Specialists in Fire Protection Engineering, Equipment and Installation since 1907

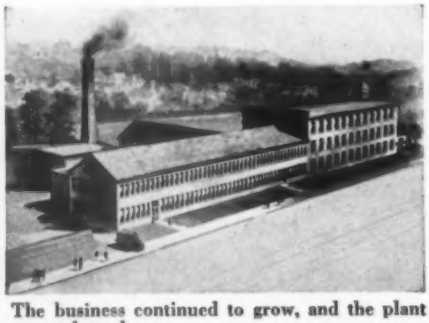
LET'S LOOK AT THE RECORD...

GROWTH OF THE INDUSTRY

THE FIRST FACTORY
NEWTON HIGHLANDS, MASS. 1866—1885



Larger quarters became necessary and Gamewell moved into this plant capable of accommodating about 100 workmen.
NEWTON UPPER FALLS, MASS.1885– 1904



The business continued to grow, and the plant was enlarged.
NEWTON UPPER FALLS, MASS. 1904—1913

For protecting its own interests and those of its customers against fire, the highly fire resistive building at the left was erected in 1913, and has since housed Gamewell's manufacturing operations.
NEWTON UPPER FALLS, MASS. 1913—1949

TRADE MARK
GAMEWELL
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Manufacturer of
FIRE ALARM — POLICE
AND OTHER
EMERGENCY SIGNALING SYSTEMS

Following the successful application of the Morse telegraph to municipal fire signaling the same basic principles were applied by Gamewell to police signaling — and to the extension of the public alarm systems to the interiors of public and private properties.

Police Signaling Systems

Gamewell developed in 1880, the first municipal police signaling system combining the principles of Morse telegraphy and the Bell telephone. This system provides the only means yet devised for completely coordinating and supervising the activities of all elements of the police forces.

Industrial and Other Applications

Gamewell systems were first applied in 1883 to the protection of industrials and institutions. The users now include many properties of the Bell Telephone System; General Electric Company; Westinghouse Electric & Manufacturing Company; Ford Motor Car Company; General Motors Company; E. I. duPont de Nemours & Company; International Harvester Company; Standard Oil Company; many Federal, State, City and County Hospitals and other institutions.

During the recent war Gamewell supplied more than 500 fire alarm and other emergency signaling systems to the U. S. and other Allied Governments for the protection of military properties.

Development

Since the inception of the municipal fire alarm industry in 1855, the burden of development has been borne by Gamewell. Experience, plus a small group of highly skilled New England workers have combined to produce signaling systems of exceptional efficiency and reliability.

We invite your inquiry.

THE GAMEWELL COMPANY

Newton Upper Falls 64, Massachusetts

FIRE ENGINEERING

NOVEMBER, 1949 VOL. 102, NO. 11

With the Editor

Nullifying Benefits That the organized drives to improve working conditions of firemen by shortening work hours, for one thing, have been generally beneficial, no one will deny. And that there is considerable room for further improvements along this line is also a fact.

When a municipality, for whatever reasons, subordinates the welfare of its people to the misguided and politico-selfish idea that budgets come before safety (particularly at election time), this Journal will take up the cudgels for the fire service, as it has so often done in the past.

What concerns us at this time is an all-too-prevalent tendency on the part of city administrations to not only misconstrue the efforts of the municipal fireman to improve his lot; and further, where popular sentiment supports the fire fighter to the point where an administration must bow to the peoples' will, and institute the sought-for betterments, to qualify them with resultant hardship to the public and to the fire department itself.

Thus we see city officials who have, willingly or otherwise, acceded to the requests of firemen for better working conditions, instituting drastic economies in their local fire defense in the misguided attempt to offset the added cost of the improvements. Economy in government is always laudable, but not where that economy is made at the sacrifice of the public welfare.

It may be true that economies can be effected in many fire departments through better distribution of fire stations and improved administration. But these economies and improvements have been potentialities for years no doubt, and should be considered regardless of betterments to the personnel of the department.

To put it bluntly, is it good business for a city or community to agree to advance the welfare of its men, and then jeopardize the welfare of all its people by imposing restrictions in the whiskery old name of "economy"?

Is it good business to give men shorter hours, then hamstring a department so that every fire that looks like an "all hands," must be considered as a multiple alarm worker just to get men? Is it good business for a chief to have to spread his men out so thin that his pumpers are one-line units, and his ladder companies unable to tackle forcible entry and/or ventilation, while at the same time making even a pretense at rescue work? And is it good business for a chief to be placed on the spot where, in effect, his superiors say, "you've got your shorter work week, but you'll have to get along without any additional manpower, and as for that new truck you've been wanting, that's out!" Is it good business to give the rank and file improvements they deserve, and then take it out on the officers, and even on the rank and file, by piling on extra obligations, extra duties which they do not deserve? In a word, what does a fire department gain, if the work week for firemen is reduced, let us say, from 76 to 48 hours, and the officers don't share in the benefits; and further, if, because of the shorter schedules, acting officers must serve the extra time, without pay commensurate with the responsibilities they must accept?

The point is further explained in this letter, from a New England fireman. He writes: "Reading your . . . magazine, I note . . . reference to Woburn and its trouble over the terrible tours of duty. . . . All of which leads to the situation in our city. Since we received the 48-hour week, our fire companies have been officered for 96 hours of each week; the other 72 hours the oldest man in each company must act as officer without pay. Now is this fair to about 48 men, those that have to act in the capacity of officer and those that are on the eligible list for promotion? The cry is that there is no vacancy so there is no need for promoting anyone. It can't be that they want to save 44 cents a day, the difference between a lieutenant's and a private's pay! . . . It doesn't help the morale of anyone ambitious to study in an endeavor to better himself, to meet such conditions; all you need is years—no book learning."

Fred Shepperd

Miami Newsprint Fire Gives Firemen Long, Tough Battle

Water Fog Proves Mettle in Controlling Stubborn, Costly Blaze

A SPECIAL REPORT TO FIRE ENGINEERING

RECORDED as the "most destructive fire in Miami history," a stubborn blaze in the huge warehouse of the *Miami Herald* for over thirty hours thwarted efforts of the Miami Fire Department, utilizing the most modern fire control facilities, to fully extinguish it.

In the struggle, which brought into action almost the entire department, scores of fire fighters suffered from smoke poisoning, fatigue and various injuries, eight being hospitalized.

Although property losses were high, they were confined almost entirely to valuable newsprint stored in the paper's newest fire resistant storage building. Because of the effective work of the city's firemen the paper's mechanical, editorial and adminstration departments were undamaged and all during the time firemen struggled with the smoky, elusive fire in the paper stocks, the many editions of the newspaper were printed and distributed without material delay.

From the spectators' viewpoint the fire was a flop, but from the standpoint of those who wrestled with it at close quarters behind the thick walls of the fortress-like warehouse for hour after hour in the heat, smoke and gases, and the 80 deg. city temperature, it was the worst kind of punishment.

What might have been the outcome had not those who waged the struggle been armed with the most modern fire fighting appliances and apparatus, and trained in their use, is problematical. That the outcome would have been far different, and losses far greater had old fire control tactics been employed is certain. Newspaper officials and others who witnessed the long drawn-out conflict were loud in their praise of the city's firemen.

The vicissitudes and uncertainty of the fireman's life are exemplified by this account of the unusual fire in the *Miami Herald's* plant, as Fire Chief Henry R. Chase of the Miami, Fla., Fire Department can testify.

On September 29th last, at its 76th Annual Convention, Chief Chase turned over his gavel as president of the International Association of Fire Chiefs to newly-elected president, Chief William J. Cawker and, with visions of a well-deserved rest, hurried for home.

He had no more than arrived when he was called upon to fight one of the worst fires of his career and in the history of Miami.

The story of that punishing struggle, which endured for three days and introduced problems of attack and control not usually encountered by the fire protection engineer, adds an interesting chapter to the case histories of the fire service.

FIRE ENGINEERING is privileged to bring its readers this account through the cooperation of Chief Chase and the Miami Fire Department. Acknowledgment is also extended to the *Miami Herald*, the American Newspaper Publishers' Association, and to the loyal readers of this Journal whose contributions have been helpful.

The plant of the *Miami Herald* is located on the edge of the high value district of the City at S.W. 2nd St. and So. Miami Ave., only a short distance from fire headquarters at Flagler and S.W. 1st St. The entire plant, of three and four stories, runs largely East and West and comprises three units, the Administration Building, erected in 1941; the Press Building, erected in 1925-6 (containing the mechanical departments, such as photoengraving, etc.); and the Annex, or storage warehouse, built in 1946. Overall dimensions of the plant are 319 ft.x100 ft. The Annex section, scene of the fire, measures 169 ft. long by 100 ft. wide where it connects with the Press Building at the Easterly end; it tapers off to about 50 ft. width at the Western apex. Beyond this, extending West, a wire fence encloses a considerable yard.

On the S.W. 2nd St. and the Miami Ave. sides, the buildings present an almost continuous wall, four and three stories in height, broken by some large windows in the Press and Administration sections, and by a few small openings in the warehouse part. The four floors of the Annex are indicated by small panel openings, with wire glass windows and metal frames. These are set high above the floors.

To the South are S.W. 1st St. and railroad tracks and sidings from which paper stock can be unloaded directly into the warehouse.

Plant construction is generally fire retardant. The warehouse walls, floors and roof are of reinforced, poured concrete, 10 to 15 in. thick. Two fairly large doors, with wire glass in metal frames, connect the Annex with the Press section on the fourth floor. Another door in turn connects Press and Administration buildings. Two stairwells pierce the warehouse floors, one located at the N.W. corner and the other at the S.E. corner next to the South freight elevator (see diagram) which has enclosed doors. There are two stairways in the mechanical section, one at the N.E. corner and one at the S.W. corner. An elevator and stairway are also located on the North side of the Administration section of the plant. On the fourth floor an aisle leads from the South stairway over to a small door. This alleyway is extensively used by employees of the plant. At the N.E. corner, as indicated on the diagram, it was customary to roll a waste paper or trash box into a position that placed it against the rolls of paper. It was at this point that the fire started.

On the East end of the fourth floor of the warehouse there had been erected a 2-in. x 4-in. partition, covered with beaver board and the enclosure so formed was used as a students' room.

Not Dante's Inferno, but Roof of Herald Warehouse During Fire

To get at stubborn fire in stacked newsprint rolls, Miami firemen cut openings in 15-inch reinforced concrete roof through which they operated fog lines. Temperature at this time was over 80 degrees F.

High Storage—Lack of Aisles a Handicap

The warehouse was used almost exclusively for storage of newsprint, there being between 6,000 and 9,000 large rolls of stock on the floors at the time of the fire. Somewhere in the neighborhood of 3,000 rolls were reported on the fourth floor. These newsprint rolls measure 66

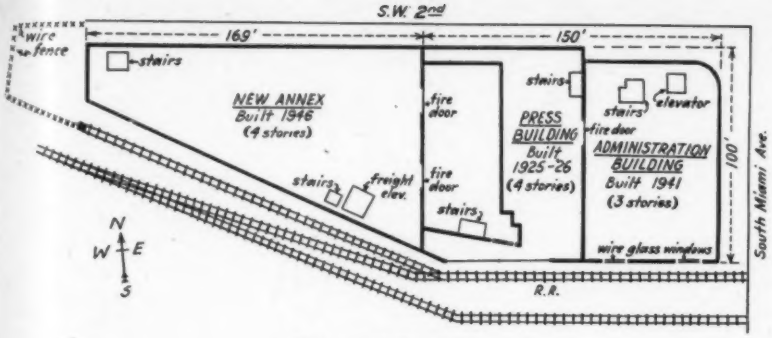


Diagram of Fire Area

in. long by 4 ft. in diameter and weigh approximately 1,500 lbs. each. They have a hollow center in the cylinder and the ends are encased in heavy paper.

On the fourth floor (and other areas) these rolls were packed practically solid, from the floor up, without skids. A space of about 3 in. to 4 in. was left over the window casings. The rolls were stored horizontally (not on end) in what is known as a "four-stack pile." In other words, they were stacked four rolls high, which placed the top rolls about two feet from the ceiling.

There were no aisles running the length of the floor and little or no room for the fire fighters to operate, even had there been no heavy smoke conditions.

At the time of the fire the plant was in full operation, although how many persons were in the storage section is not disclosed.

On the outside of the plant, striking employees of the paper maintained a picket line which, it is said, continued unbroken almost throughout the duration of the fire. During that time, and after, there were rumors of possible sabotage which were possibly inspired by the strike conditions.

Delayed Discovery and Alarm

That there was a delay in the discovery of the fire and tardiness in notifying the department is certain. According to the press account, first report of the fire came from a *Herald* engraver, Charles King, working just east of the warehouse on the fourth floor of the building. He said he heard flames crackling behind the closed doors of the 169 x 100 ft. storeroom west of the engraving department.

How long the fire had been burning is undetermined. It is disclosed that following its discovery a 20-year-old copy boy, Jim Miller, one of the first on the scene after King located the fire, attempted to extinguish the blaze with CO_2 fire extinguishers. The fire at that time was in a large box of trash (one of the wooden containers used to collect waste paper, etc.) which was located about 15 feet inside the door, and up against the rolls of paper which were beginning to burn when the first unsuccessful effort to extinguish it was made.

Someone brought two 15-pound CO_2 extinguishers, it is related, both of which Miller emptied onto the blaze. "We almost had it under control," the press story said, "but by the time we got the third extinguisher, it was too late."

No estimate of the time consumed in attempting to fight the fire before an alarm was turned in has been given, but fire officials conservatively believe this to be from five to ten minutes.

The fire department received its first notification, by telephone, from the *Herald* office switchboard, at 6:26 P.M., Saturday, October 1st. This brought the usual full assignment for a box alarm from the high value district.[1]

Apparatus from the headquarter's companies, only a couple of blocks away, quickly reached the scene but ran into conditions which accounted for further delay in the attack. Upon their arrival at the *Herald* building, which as will be noted from the illustrations covers a considerable area, there was no one immediately available who seemed to know anything about a fire, and it was several minutes before the members of the first-due units learned the exact location of the blaze, by which time the fire had involved a considerable area of the top floor and was already penetrating through the cracks and crevices into the rolls of stored paper.

[1]Response to first alarms in and bordering the Miami congested value district included 2 pumpers, 2 ladders, 1 hose and the rescue squad during the night hours, and 2 pumpers, a rescue squad and 1 ladder during the day, with a district chief on all alarms. Response to telephone alarms is the same as for box alarms, except for calls for autos or grass fires.

Fire Fought Almost Entirely with Fog

As has been said, the warehouse building was not equipped with any automatic fire detention or extinguishing systems. Although a sprinkler system undoubtedly would have held, if not extinguished, the fire in the waste paper container at the outset, once the fire had worked into and between the stacked rolls of paper the extinguishment presented a severe problem for the firemen. In the case of the *Herald* fire, the lack of adequate openings, the extent and height of the piled stock and absence of aisles and areas from which to operate fire streams spelled trouble for them.

Once the location of the fire was determined, efforts were made to head off the flames by using four 1½-in. lines equipped with fog nozzles. In this operation the crews were unable to get ahead of the fire or in any way to localize it, the attack having to be made, of necessity, from the east by way of hallways and doors leading from the other part of the plant. These men were driven by the heat and smoke from their positions, even though masks were used for their protection.

Twenty minutes after the first alarm, a second alarm was sent in by radio, followed at intervals by special calls bringing into action practically all the city's fire fighting strength. Off-shift men were summoned by radio as soon as the magnitude of the problem facing the department was apparent.

To reach the flanks of the fire, and if possible to prevent its extension, aerial ladders were raised along the north side of the building to the small windows, which were then broken out and fog nozzles capable of discharging 500 GPM. were put into play. These were effective

Miami Herald Publishes Paper While Firemen Fight Fire

Scene on SW 2nd Street showing fire apparatus and warehouse at end of plant, with firemen operating heavy fog patterns into top floor of building. Rescue squad and first aiders prepared for victims are shown in right foreground.

in subduing the fire and reducing the heat and smoke in the area they covered. Firemen then attempted to take 1½-in. lines inside over the rolls of paper to complete extinguishment of the blaze, but it was found that the fog nozzles were driving the heat and smoke to the south with such rapidity that it was decided to shut down the large fog lines in the hope that the men could gain control of the fire by the use of the small lines and, working atop the stock, reach a more westerly position and head off the fire.

Within five minutes after shutting down the fog nozzles on the aerials, according to Chief Chase, the heat and smoke became so intense that his men had to abandon that idea of attack and the large fog nozzles were again turned on.

The inability to cover the entire warehouse floor with effective streams or fog pattern may have been the reason why the southwestern section appeared to develop the hottest fire, and was the last area to be extinguished. Throughout all day Monday after firemen were finally able to operate in this area, they continued to use four lines, as new blazes burst forth in the rolls. The fact that this section was the hottest area while the fire was at its height, and that it was far removed from the place where the fire apparently originated, led to the conjecture that the fire may have started in more than one place. This spurred investigation by Inspector A. M. Willis of the police arson squad into the possibilities of arson.

For approximately ten straight hours, after the department got to work on the blaze, fire fighters poured water into the fourth floor from the four aerial ladders and from hand-lines taken up winding stairwells. At the height of attack these lines were delivering over 3,000 GPM into the building. It was estimated that during the first 32 hours of the struggle over 6 million gallons of water were poured into the plant. Shortly before 6:00 A.M. on Sunday morning the flow was reduced to approximately 1,500 gallons a minute. By this time the fire was confined, but not beaten.

By 7:00 P.M. Sunday, all but one of the aerial ladders were returned to quarters but hand lines continued to be operated in the interior of the top floor and through holes cut in the roof to dampen down the remaining smoldering fire and make easier the work of overhauling. All these hand-lines were equipped with fog nozzles.

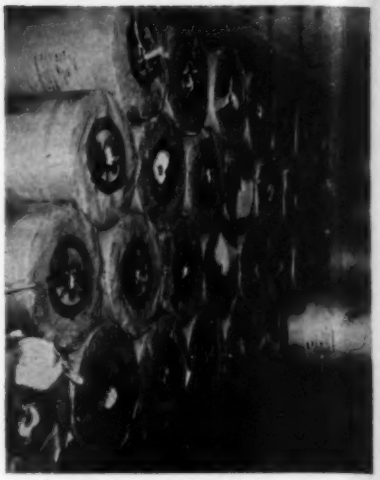
Reporting on the problems of attack, Chief Chase said: "The result of this fire and the investigation made afterwards proved without doubt that fog was the only logical method of attack and it was by the use of fog that the building was not materially damaged structurally. However, the wetting of the rolls caused at least 95% of the damage. On observing the paper as it was brought out of the warehouse, we found that the 95% water damage is true; it was seldom that any appreciable amount of paper was seen that had been actually burned. Inspection in the warehouse showed that none of the bales of paper on the top area was even scorched, with the exception of one spot in the southwest corner where for some unknown reason, most of the fire appeared centered."

Power Tools Used on Roof

Early in the attack, when the problem of venting the upper floor and of attempting to draw off the smoke and heat from the balance of the plant became acute, firemen turned their attention to opening the roof as one solution. The fire department's air compressor was brought into play, and using jack hammers, three fairly large openings were broken through the ten-inch concrete slab. This operation required over three hours and men took some punishment from the heat and smoke in the effort.

After these holes were cut, and handlines fitted with fog nozzles were operated through the apertures, it was found that, although the openings were of some value in relieving the interior of smoke and heat, they did not provide the final answer to permitting men to work inside on the floor. It was found, also, that more smoke and heat were being forced out of the south windows by the use of the fog streams than went out through the roof openings.

Thirteen hours after the first alarm, the smoke was still so thick in the east end of the building that breathing apparatus was needed. However, by noon (Sunday) sufficient fire had been knocked down to permit the men to begin the job of removing the rolls of paper through the first hole broken in the west wing of the building. By 4:00 P.M. firemen had the stairways and elevator shafts dyked to take care of the water and the plant servicemen were able to get the south elevator into operation and begin the removal of paper from the east end of the storage building.



Newsprint Stacked in Fireswept Fourth Floor of Herald's Plant

Between 2,000 and 3,000 rolls measuring sixty-six inches long by four feet in diameter, weighing 1500 pounds each, stored on fourth floor of Herald warehouse, from floor to within inches of ceiling, handicapped firemen in reaching fire. Note absence of skids which might have prevented heavy water loss.

Wet Water Wagon Called

The Miami Fire Department's wet water wagon, or Chemical 5 as it is presently designated, did not respond on the initial call, contrary to press reports, which had the department attempting to use wet water to control the initial outbreak; the *Herald's* building is outside the unit's first-due district.

However, Chemical 5 responded on the second alarm and was at the scene in about five minutes. It was hoped that wet water might be gotten on the rolls of paper ahead of the fire and thereby reduce the fire's extension, but by this time the heat and smoke were so intense that firemen were having difficulty with their canister masks. This was probably due to clogging from the carbon in the smoke and the saturation with water vapor.

Captain Sharpe of the Chemical crew changed to oxygen masks and the crew was able to enter the room and attempt operations. Unfortunately, however, the newsprint was stacked solidly to almost two inches of the ceiling, with only a single aisle along the side of the south wall and it was impossible for the men to get water on the fire, or in advance of it.

Masks Prove Indispensable

The burning paper stock gave off particularly pungent smoke, and this, com-

Miami Foxhole Fire Fighter Uses Water Fog

Perched precariously on stacked rolls of newsprint, this Miami fireman operates 1½-inch fog pattern on fire working between newsprint stock and roof of Miami Herald warehouse. Note breached concrete roof and hoseline extending into opening. Picture illustrates the personnel protection afforded by an adequate fog pattern.

bined with heat, made operating under these handicaps difficult. Fire fighters took considerable punishment. As previously stated, the fire had progressed sufficiently in extent so that the first arriving units could not hold their ground and work at close range and they shortly were driven out entirely. It is estimated that 16,000 square feet of floor space were involved before lines were operated. A number of small explosions which occurred on the floor's southwest corner also mystified fire officials. While some sulphuric acid had been stored at the east end of the plant for use by photo-engravers, there was nothing but rolls of paper at the end where the explosions occurred.

Firemen attempting to work their way over the rolls of paper, when once the interior attack was attempted, were forced to wear breathing equipment. So, too, were men stationed at doorways and interior openings. This necessitated the use of large numbers of masks and in the emergency, outside services, including the Army and Navy, supplied additional equipment with the necessary air and oxygen. Press reports state that "more than 58,000 pounds of oxygen were used for mask equipment and resuscitation." These same informants report one man in every three of the 183 men and officers who fought the fire was overcome or required medical attention in the first 32 hours of the struggle. According to Chief Chase, there were about 40 men who were incapacitated for a limited time but by the use of oxygen by the Fire Department Rescue Squad, for the most part, soon they were back in service. Eight firemen were sent to hospitals and were released after careful examination. An estimated 55 men received treatment.

This wholesale use of masks under actual fire fighting conditions and the varying degree of results therefrom, emphasized to chief officers the need of not only constant training in mask operations, but of men carefully following the training when they get into action on the fire ground. Chief Chase estimated that about 75 men who had been trained in mask operations had not, prior to this fire, received actual practice to prove to them their training was correct. The fire proved an effective training ground for these men.

He adds that not all the men knocked out with or without masks were men who had received only drill school training. Many old timers were incapacitated from fatigue as a result of their strenuous exertions to head off the fire in the intense heat, even though they had gas masks on.

Although handicapped, firemen were able to confine the fire to the warehouse section of the plant so that the paper could continue to be issued using stocks taken from other sources of supply. Not over 5% of the approximately 3,000 rolls of newsprint that suffered damage were actually burned. This Chief Chase attributes "strictly to the use of water fog." He adds that had the department proportioners that would have permitted the use of wet water in streams as well as fog, they might have been better able to handle the fire although they would of course had the heavy water damage.

The firemen who were hospitalized and later returned to their homes were: Jack Furney and William Kitchell, Station 1; William Burke and Robert McQuay, Station 2; L. E. Cotton and Danny O'Connell, Station 4, and Charles Tomberlin and Charles Veber, Station 5.

More fire fighting equipment was thrown into the *Herald* battle over the weekend than was ever used before in Miami, it is reported. Seventeen pieces of apparatus, together with various utility, police and other emergency equipment were employed.

As the fire dragged on and more and more Miami fire forces were called into action, outside aid came to help protect the city. Both Miami Beach and Coral Gables volunteered their services and the former was located at Flagler Street headquarters, and an engine of the latter filled in at Station 2. Several alarms were answered by the covering apparatus during the protracted struggle.

Two ambulances remained at the scene Saturday night to remove casualties to Jackson Memorial Hospital.

Although the fire was under par from the spectators' standpoint, the publicity given it by the radio broadcasts, papers, including the *Herald* itself, brought thousands of the curious to the scene. They were controlled by extra squads of police aided by County traffic men.

Final estimates by plant officials place the damage at $600,000, mostly to the paper stock. The fourth floor of the warehouse showed the marks of the terrific heat but was otherwise little damaged. The cause has not as yet been determined.

Soaked Paper a Hazard

The weight of the 2,100 tons of newsprint stored on the fourth floor increased many fold as the huge rolls, 66 inches long, four feet in diameter, stacked four deep, blotted up water like a sponge.

It was this tremendous weight which presented the major hazard to the structure and fire fighters. The weight of the water poured into the structure by Monday night exceeded 50 million pounds, taxing the strength of the reinforced concrete building. Adding to the danger, also, was the expansion of the mass of water-soaked rolls. The paper continued to push like a relentless flow of lava, to fill up the area and press against the 15-inch walls.

At the east end of the warehouse the swelling paper had advanced more than 13 feet toward a protecting door which shielded the mechanical, editorial and administration part of the building. It was against this glacial-like movement of paper mass which fire crews raced.

The swelling and shifting stock further complicated efforts of the fire fighters to reach the lingering hidden fire and made overhauling a serious problem. It was found practically impossible to remove the damaged rolls from the fire floor through the available apertures. It was necessary that a middle aisle be cleared on the top floor to enable the men to work.

In this extremity, two holes were battered in the west end of the building by a giant crane swinging a 1,000 lb. weight. Fire crews and laborers aided by the cranes and lift trucks shoved rolls through these openings, finally clearing working aisles through more than 200 feet of building. This done, small handlines were operated at close quarters to kill the lurking, smoldering fire in the bottom rolls of the stock.

Meanwhile, officers and men kept close watch on the structure to note any swelling or movement of the walls and floors. Said Chief Chase: "I don't know of another building in Miami that could have taken that kind of punishment and still stand." Despite the punishment, however, the building apparently suffered little structural damage.

Paper Continues Publishing

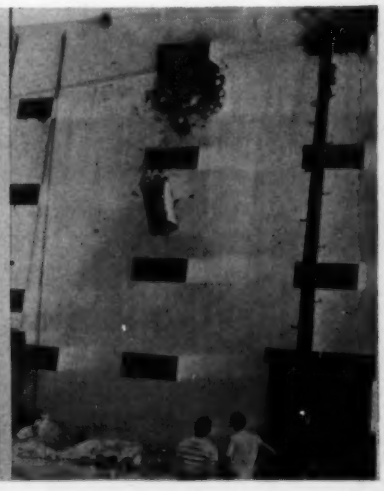
An oddity of the long struggle was the fact that although the fire persisted for three days, the paper continued to be published without serious interruption. While firemen fought the stubborn blaze out back, out front regular *Herald* forces went about their routine duties. No editions were missed.

Water, which cascaded down stairwells and elevator shafts from the upper floors, temporarily flooded out press units one by one until at the critical stage only a fourth and last press at the extreme east end of the building was left. Firemen and employes of the paper

(*Continued on page* 893)

Swinging Crane Batters Walls

One thousand pound wrecking weight and crane was used to breach opening in thick wall to permit removal of heavy newsprint. Note reinforced concrete construction, water being released, and narrow windows, only wall openings in vast warehouse.



Clearing Warehouse Floors of Heavy Newsprint During Herald Fire

Firemen and laborers remove water-soaked stock through breached walls of warehouse to lessen danger of collapse and enable fire fighters to locate lurking fire in huge rolls of paper.

FIRE DEPARTMENTS PUT PUNCH IN FIRE PREVENTION PROGRAM

Many Novel Stunts Add Interest to Nationwide Observance of Fire Prevention Week

A Staff Report

ACCORDING to Fire Chief Bernard J. Padgett, of the Alexandria, Va., Fire Department, the public demonstration by men of his organization, held during Fire Prevention Week this year, did more to arouse interest in fire prevention, and secure public cooperation, than any other of the several activities carried on by the department.

The demonstration held on the night of Oct. 13, sponsored by the Optimist Club, local service group, consisted of several evolutions and exhibitions of fire extinguishing in which members of Ladder 3, Engine 5, Hose 2 and the Rescue Squad participated.

The program included, (1) demonstrations of aerial ladder operation; (2) ground ladder evolutions; (3) rescue operations; (4) use of mechanical foam on panel fire; (5) use of dry chemical extinguisher on a gasoline and oil fire in pit and on a gasoline spill fire; (6) demonstration of fog nozzle operation.

While hundreds looked on at the Municipal Auditorium, a hot fire in a makeshift structure was prompty extinguished by Alexandria firemen using latest type equipment and extinguishing agents.

Camp Gordon Believes in Signs

As a part of its fire prevention program, which incidentally is not confined to a single week, the Signal Corps Training School, Training Aids Section, Camp Gordon, Ga., has installed a dramatic, animated fire prevention sign.

Located at Gate 5 of the Camp where it is exposed to the greatest number of passersby, the sign is constructed of four panels. The panel showing the fire scene and terrain approach to the fire is made of 4 x 8-ft. masonite framed by 2 x 4's. The panel showing the matches, ash tray, cigarettes and G. I. can is constructed of 4 x 10-ft. masonite, the individual objects being cut out on a bandsaw in one continual piece. The lettering was cut out of 5/8-in. plywood. The backing for the letters was 3 x 12-ft. masonite which was coated with one coat of outside white.

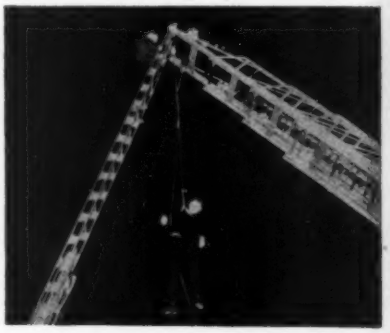
Training Aid artists painted the scene, using outside oil paints. The landscape approach to the fire is set at an angle of 30 deg. from the actual fire scene. A space of 8-in. was left between the two panels for the lighting system. Lights, 17 in all, were red, yellow and orange, which flickered in continuity to animate the scene, and make it appear like a real fire.

The panel containing the G. I. can, etc., was set approximately one foot in front of the lower panel containing the landscape approach. Yellow lights were placed in back of the G. I. can and the book of matches to give added illumination to the main fire, also a three dimensional effect to the four items on the panel. The panel containing the lettering was set two feet in front of the panel containing the G. I. can itself. Two yellow lights were placed in back of this panel to eliminate showing of the G. I. can, etc.

Twenty feet in front of the sign containing the lettering, and approximately 45 deg. off to each side, two spotlights were located. A yellow spot was placed to the left and a blue spot to the right. The yellow spot was focussed on the panel as a whole to give better illumination, and the blue spot was focussed on the smoke and cloud effect to more forcefully bright out the cloud effect at night.

The box containing the lights of the sign was situated in back of the pine tree located at the right of the sign. Two hundred and twenty volts were used for the lighting system, and a ¾h.p. motor was used to turn a cylinder on which the contact points were staggered to obtain the flickering effect of the 17 lights placed between the largest panels. Sixty-watt lamps were used throughout. The main switch controlling the lights is set between the motor and the 220 source of power. The 220 was used in slit phase, 110v. off each side.

The frame work of the sign was made from 4 x 4's.



One of a Number of Training Demonstrations Staged by the Alexandria, Va., Fire Department During Fire Prevention Week.

Decatur Issues Booklet

Reminding its citizens that Decatur won first place in the 1948 U. S. Chamber of Commerce contest, a booklet prepared by Fire Chief Ira D. Leech and his aides, also spreads the gospel of fire safety, while doing a selling job for the Decatur Fire Department. The booklet is caption *"Do You Realize"* and in its publication, the Department had the aid of local insurance agents, merchants and business men, many of whom took advertising in the publication. Pages in the booklet reproduce pictures of officers of the department together with quoting pertinent fire prevention suggestions.

Taunton, Mass., Papers Cooperate

As a follow-up in Taunton, Massachusett's Fire Prevention Week campaign, the Taunton Daily Gazatte devoted almost two full pages in its Oct. 22 issue to a feature story on the history and progress of the Taunton Fire Department, Chief Edward F. Gorey commanding. The message, which recounts the large fires in the city, urges continual observance of fire prevention standards. The article was headed "155 Years of Protection, Taunton Firemen's Record."

F. P. Fire Drill Only a "Dress Rehearsal"

On Sunday, Oct. 9, 1949, Harold W. Ross, editor of the New Yorker Magazine, who takes his fire prevention

U. S. Army Signal Corps Photo

Novel Fire Prevention Sign Designed by Signal Corps Training School, Camp Gordon, Ga.

efforts seriously, opened Fire Prevention Week with a fire drill in his 15-room mansion. It was highly successful, but only a dress rehearsal to the drama that came with the close of F. P. Week.

On Oct. 15, Turn-of-the-River, Ct., firemen put on the real performance in and on Mr. Ross's residence. For two hours, beginning with the first spark noticed at 2:30 P.M., twenty-five volunteers staged a real fire fighting exhibition pouring hose streams on the roof of the house on Wire Mill Road. When they had finished, the roof was not in such good condition and the east wing required repairs. Damage was estimated at $10,000.

Inter-Company Competition Features F. P. Week

In Bound Brook, N. J., Fire Prevention Week was climaxed Oct 16 with inter-company competition between five fire companies of the Bound Brook Fire Department at Codrington Park. The tournament idea was adopted to attract public interest. Open house and social hours at the fire station, during the week, a parade of fire fighters and apparatus on Saturday Oct 15th as a part of the Annual Bound Brook Inspection and Parade was followed by a dance at the Elks Club. Bound Brook Fire Company No. 1 copped the inter-company trophy with the most points in various tests of fire fighting ability.

Lawrence, Mass., Uses Radio to Dramatize F. P. Week

A feature of the F. P. Week program of Lawrence, Mass., was a broadcast over radio station WLAW which emanated from its Lawrence Studio and included also the Boston studio. High point of the broadcast was an interview with Fire Chief Edward A. Retelle of the Lawrence Fire Department, and Francis W. Kelley, Chief Inspector of the Boston Fire Department.

By pre-arranged plan, the radio announcer telephoned the Lawrence Fire Department, while broadcasting, and Chief Retelle answered the 'test alert' accompained by fire apparatus. The broadcast and the response received widespread interest. The entire radio program was recorded and can be played back at any time.

N. J. Safety Council Stages Demonstrations

As the climax event to its Fire Prevention Week drives, the New Jersey State Fire Council staged two fire control demonstrations. One, the Annual Fire Show, was held at the Pyrene Proving Ground, and the other at the Camden High School Athletic Field, Camden, N. J. Both events were held on Oct. 13th before large crowds of invited municipal and industrial fire chiefs, safety engineers and others.

The events included extinguishment of different types of fires using different extinguishers.

New York F. P. Week Outstanding

New York City, which in the past few years has been growing more and more fire prevention conscious, this year pulled out all the stops and played a full F. P. Week's continuous show. As usual, the Fire Department sparkplugged the program, with Fire Commissioner Frank J. Quayle and Chief of Staff and Operations Frank Murphy and Chief of Department Peter Loftus directing affairs.

Fortunately able to draw upon its large and capable organization of personnel and its priceless museum of ancient fire fighting equipment, the Department missed no medium of drama and publicity to get over its messages on fire safety to the city's vast and polyglot population.

In addition to broadcasting fire prevention messages over the local radios and television (believed to be the first time fire prevention has been "sold" over TV) members of the uniformed force, aided by some volunteers, put on traveling displays along the busy streets, utilizing old fire steamers; filled the mails with propaganda and used the 350 and more fire stations of the metropolis as focal points for campaigning.

Mayor William O'Dwyer and Fire Commissioner Frank J. Quayle presented medals to 532 public and parochial school children on October 14th at City Hall, following a flashy parade of apparatus and personnel from the Battery to City Hall Plaza. Speaking of the false alarm evil, the Mayor recalled that one of his brothers, a fireman, lost his life in answering a false alarm.

The children received the awards for submitting prize-winning essays on fire prevention. On the 13th, judging of fire prevention posters submitted by members of the Department was held, climaxing a contest sponsored by the Uniformed Firemen's Association, the Uniformed Fire Officers' Association and the Uniformed Pilots and Marine Engineers Association of the New York Fire Department.

Before the winners were chosen, the poster exhibit was on display at Engine 31. The judges were Frank Lee Donahue, director New York Department of Commerce; Archibald W. Smith, past president, New York Board of Fire Underwriters and C. C. Beall, famous artist. Awards were: first prize $75 savings bond; second prize $50 bond; third prize $25 bond; and fourth a $10 UFA store purchase certificate. The art contest and F. P. Week were given further publicity when leading posters were displayed on the old steamer.

The winners in the poster contest were David W. Hirsch, Ladder 45; William Bockhold, Ladder 27; Benjamin B. Chuda, Engine 91 and Charles M. Lang, Engine 241. Others who won prizes were Daniel E. Sullivan, Ladder 137; Lt. John Herman, Jr., Engine 224; and Martin C. Kehayes, Ladder 22. Honorable mention went to Lucian F. Fiore, Ladder 29.

In the slogan contest also held among members of the department, winners were Lt. John Herman, Jr., Engine 224, whose $50-winning slogan was "A clean house helps make a fireproof house." Capt. George V. Roland of Eng. 258 won a $25 bond with his slogan "Prevent fires—the first may be your last." Third place, and a $25 bond went to Carmine DiAngelis, Ladder 20, for his slogan "When cleaning out—if in doubt—throw it out." Fourth place was won by Woodrow C. F. Koch, L.S.S. 1, for his slogan "A design for safety—prevent fires." Fifth place went to Lt. John F. Walker, Engine 41, for this couplet "Fires, like clocks, strike at all hours, day and night." To Lt. Edward J. Heiner, Ladder 140, went sixth prize for "Fire kills, prevention saves," and to Harold E. Seims, Ladder 153, went seventh prize for "Be careful about fire before rather than in the hereafter."

Veteran's Hospital in Walla Walla, Wash., Has Program

The Fire Prevention week program of the Veterans Hospital, Walla Walla, Wash., Frank Maddux, Chief, as decribed in the October issue of FIRE ENGINEERING, went off according to schedule. Beginning Wednesday, Sept. 28th, and continuing Friday, Oct. 14, there were fire prevention and fire control activities under way almost hourly.

Two of the main features of the program are illustrated herein.

McMinnville, Ore., Paper Cooperates in Big Way

Prominent among the many newspapers throughout the nation that devoted extra editorial space to promoting F. P. Week is the McMinnville, Ore., Telephone Register. Last year this paper published its first "Annual Fire Preven-

Photograph by H. E. Townsend

Kenneth Weaver, Instructor at State Fire School, Washington State Department of Vocational Education, Lecturing to Personnel of Veterans Hospital and Local Civilian Hospitals.

Photograph by H. E. Townsend

Firemen of Veterans Hospital, Walla Walla, Wash., Demonstrate Extinguishment of Live Structural Fire by Use of Fog.

tion Week Special"—an entire edition of its paper devoted to fire prevention and protection. It was so successful that this year it issued its second annual special edition—a 20-page section full newspaper size pages, in colors, crammed with information about the McMinnville Fire Department, its splendid record, and what-to-do about stopping fires. Local business houses backed the department and the paper by subscribing heavily for advertising space in the Special. Ivan L. Pearson is Chief.

Deaf Dalmatian Star of Teaneck F. P. Drive

Fire Prevention Week in Teaneck, N. J., received considerable local publicity as it concluded with a two-year old, deaf Dalmatian occupying the center of the stage. The Dalmatian, "Queen," owned by 12-year-old David Kayser, makes a hobby of fire prevention the year 'round, so it's claimed

A cigarette tossed on the ground was promptly stamped out by Queen. Queen is against lighted matches, too, and proved it by promptly 'kicking' out the flame.

Unlike many Dalmatians, Queen has never been a fire house pet. She has been deaf since birth but understands lip movements and gestures of her young master. Teaneck firemen talk about signing Queen up as a permanent F. P. Week worker.

Museum of Science Has Unique Exhibit

Marking the 78th Anniversary of the Great Chicago Fire of 1871, and observing this year's Fire Prevention Week, the Museum of Science and Industry, Chicago, Ill., opened its latest exhibit, the "Fire Engine Room" on Sunday, October 9, 1949.

The Museum has created an old style fire station in which it displayed typical fire fighting equipment of earlier days, from the hand-drawn, hand-operated pumper of 100 years ago to the three-horse hitch steamers of the 1900's.

During Fire Prevention Week, the Chicago Fire Department cooperated with the Museum, displaying its newest pumper and ladder at the Museum's door and other modern fire fighting equipment in the Museum's north court.

In addition to the old hand-drawn apparatus, the display included famous "Old Number 17," a steam fire engine that was at one time the largest pumping unit of the Chicago Fire Department, which operated at the Iroquois Theatre disaster of 1903, and Chicago Stockyards fire of 1910.

Among the mementos displayed were bed keys, used for dismantling the beds in burning homes (1761-1845); warning rattles used by night-watchmen (1750-1850); leather buckets used by early volunteers; fire marks, used by the early insurance companies, and other historic relics.

Ohio Fire Chiefs Convene

Dayton, Ohio, played host to the Thirty Second Annual Convention of the Association of Ohio Fire Chiefs on Sept. 8, 9 and 10, offering a social and business program to the 300 registrants that was timed to the minute, from the introduction of Association President William Ferrie by Chief Joseph A. Kirby, and the Invocation by Rev. Father Howard Lesch, Chaplain, Dayton Fire Department to final business sessions and adjournment.

City Manager Russell E. McClure and Mayor Louis Lohrey welcomed the visiting delegates at the opening sessions at the Miami Hotel, Dayton. Following the memorial services, Chief Frank McAuliffe, Chicago Fire Patrol spoke on Civil Defense for National Security "urging strong local protective agencies as a wartime defense plan nucleus."

President Ferrie assailed the present vocational training for Ohio firemen claiming university professors are trying to train firemen by university courses, and calling for more practical instruction. The Association delegates later adopted a resolution seeking revision of the program.

A dinner at Suttmiller's restaurant marked the evening's events. On Friday the 9th, the chiefs toured Wright-Patterson Air Force Base and witnessed demonstrations of firefighting.

Forrest B. Lucas Assistant Chief, Dayton, told how his City's Fire Division encouraged and instructed private fire brigades.

Chief Inspector Reginald B. Kurfiss, also of the Dayton Fire Department, advocated better fire prevention methods.

A resolution condemning the "careless smoker" was introduced by James P. Flynn, Cleveland Battalion Chief, speaking for that city's new Fire Chief, Elmer M. Cain.

In its concluding session, the Association elected the following officers for the coming year: President, William H. Cheesman, Chief Harrison Township Fire Department; Vice-President, Raymond Earle, Chief Massillon, Ohio Fire Department: Secretary-treasurer. William H. Rosche, Assistant Chief, Canton Fire Department (re-elected). The Board of Directors will later announce the 1950 Convention city.

A special three-day program was arranged for the ladies of the convention.

Philadelphia Modernizes Fire Department

The City of Philadelphia recently purchased a million dollars worth of new fire apparatus to replace obsolete machines and to provide additional fire fighting strength.

During Fire Prevention Week a parade of apparatus already delivered on the order was held to show the public the progress being made in bringing the strength of the department up to date. New apparatus in the parade included twenty-two triple combination pumpers, twenty combination cars, nine aerial ladders and one rescue squad car.

John C. Cost is Chief of the Philadelphia fire department.

Box 1776 Association Presents Awards

Highlighting its Third Annual Banquet, the Box 1776 Association of Philadelphia, Pa., on September 26, 1949, was the presentation of a number of awards for outstanding service in fire prevention.

Presented by Albert H. Redles, president of the Association, one certificate of award went to the National Board of

Albert H. Redles (Left), President of Box 1776 Association, Makes Presentations to J. H. Arnold, N. B. F. U. (Center), and to Battalion Chief George H. Kingston, Philadelphia Fire Department.

Fire Underwriters and was based on the Board's survey of the fire fighting facilities of the City of Philadelphia, and its recommendations which will lead to increased fire protection and thereby help save the lives and property of its citizens. The award was accepted by J. H. Arnold, assistant chief engineer, who headed the party of engineers who made the survey.

Another certificate of award was presented to Acting Fire Marshal George H. Kingston, Battalion Chief, Philadelphia Fire Department, for outstanding service in fire prevention. The third award went to the Philadelphia Inquirer from the National Board of Fire Underwriters and was presented to the In-

quirer by F. John Barclay, vice president of the Fire Association of Philadelphia. The paper was honored "for its continuing efforts to make the community safe from fire."

Speakers at the banquet, held at McAllister's Restaurant, were—in addition to President Redles, Director of Safety Samuel H. Rosenberg, Philadelphia; former Chief Engineer, William F. Cowden; F. O. Schierff, Supt. of Fire Alarm and Radio System; H. Wesley King, Supt. Insurance Fire Patrols, and Deputy Fire Chief William Simmler, Philadelphia Fire Bureau.

President Redles, speaking for the Association of fire buffs which numbers prominent local business and professional men, urged broadening and improving the city's fire protection facilities, pointing to the increase in the fires in shopping centers, as described in FIRE ENGINEERING (September, 1949). He recommended a dozen avenues of betterment for the consideration of those charged with Philadelphia's fire control.

FIRE GETS FAST START BUT IS HELD BY MADISON FIREMEN

Lumber and Coal Yard Blaze Controlled by Two Pumpers, Seven Lines

By Chief Robert Chambers
Madison, N. J., Fire Dept.

THE fire which destroyed the large coal and lumber storage building of the Morris Coal & Lumber Company at Madison, N. J., on Saturday afternoon, August 20, 1949, dramatically illustrates how a fire can gain great headway, undetected, in a matter of seconds under favorable conditions, even with fire fighting facilities close at hand. It also casts light on how serious a delayed alarm can be, if the delay is even only a matter of moments.

The properties involved in this fire are located only a short distance from the D. L. & W. Railroad station, the platform of which is elevated at this point.

Immediately adjoining the lumber company's property on the northwest is a large municipal parking lot. Beyond this, separated by a large open area, is the municipal building, housing fire and police headquarters. Across the railroad tracks lies the business district which, at the time of the fire (soon after 3:00 P.M.) was thronged with shoppers.

New Jersey State Highway 24 runs parallel to the railroad, one block to the north. Another main thoroughfare, shown in the picture, adjoins the company's property, but it was blocked off at the time of the fire by reason of a sewer construction job some distance to the east of the involved buildings.

It was Saturday, the busiest day of the shopping week, and the busiest time of the day for shoppers, yet this fire appeared to be undetected until it had burst "full blown" into being. Then it was evidently noticed by several persons about the same time. Mrs. George Hansom, wife of the yard watchman, who with her husband occupied an apartment on the third floor of one of the buildings (not shown in the picture because of smoke) went out on the rear upper porch of the apartment to hang up some clothes and found smoke and embers swirling about her. She ran back into the apartment to notify her husband, and when they returned to the rear part of their quarters they found flames coming in the kitchen door.

The couple tried to escape down the stairway, but found themselves trapped and were forced to jump from the windows.

Just prior to jumping, Hansom called fire headquarters. Before he had completed his call, the telephone wires burned through, but not before he had given the location. At this same instant some taxi drivers at the station tried to report the fire, and a woman in a car drove up to fire headquarters for the same purpose.

Driver Rathbun of the Fire Department, on duty at the time, sounded location 26 on the diaphone and responded with a 1,300 GPM pumper. In the accompanying picture, he has just pulled up to the hydrant and the first line has been stretched in. It is evident from the few spectators in the picture that even people in the immediate vicinity were not aware of the fire until it suddenly burst out as shown.

The writer, who was a few blocks from the scene, noticed the first big cloud of smoke, and arrived at the fire just as the apparatus pulled in. The alarm was recorded at 3:18 P.M.

Assistant Chief Ted Daniher, who also arrived about the same time, immediately ordered a second alarm, which brought to the scene all available apparatus and men. Brooklake Fire Co. No. 2 from the neighboring borough of Florham Park, also sent a pumper and men, and covered up for Madison at its fire headquarters. This force also stretched a line and wet down the buildings and lumber sheds of another large lumber yard just across the railroad tracks.

Because of the locations of hydrants in the area and the source of water supply, only two pumpers were in operation, a 1,300 GPM pumper, which supplied four lines, using 1-in. tips, and a 750 GPM unit which was put in operation by Driver McLaughlin at a hydrant on another street, from which three lines were stretched through the back yards of residences, and the fire attacked from the rear.

Water supply was apparently ample to supply seven lines in operation, and pressures of 150 to 200 PSI were maintained on the pumpers. However, when an additional pumper was placed in operation for supplying a deluge set, the pressures on the other pumpers diminished appreciably and it was discontinued. Water was taken from six-inch mains fed by a 10-inch main.

Despite the intensity of this fire, it was extinguished by the fire forces with property loss of only $24,000. The fire was prevented from extending to other buildings than those originally involved, in spite of the fact that there were serious exposures, which were ignited several times by the intense radiated heat and flying brands. None of the company's lumber sheds or stacked lumber was burned. A quantity of shingles, tar paper, paint, insulation and assorted building materials was destroyed in the fire, which also communicated to and rendered useless the coal trestle, although the concrete coal pockets underneath it were undamaged.

The rapid spread of this fire is attributed to (1) the long, hot, dry summer; (2) the open, unrestricted nature of the buildings, allowing rapid spread of the blaze; (3) the extremely combustible nature of the buildings and contents; (4) accumulations of coal dust which lay along the rafters and other portions of the superstructure of the coal trestle, resulting in a flash fire inside the tunnel-like affair.

The fire was fought by about 75 Madison firemen with assistance of outside volunteers arriving on the mutual aid call. Extra details of police were required to help control the crowd of curious and the traffic on Main St. (Route 24) and Prospect St. Railroad trains moved slowly past the scene during the blaze because of the heavy smoke.

Madison, N. J., Lumber and Coal Yard Fire Just as First Arriving Fire Company Was Getting Initial Line Into Operation

HEAVY FIRE FORCES REQUIRED TO CONTROL COSTLY S. F. BLAZE

Vast Food Warehouse Offers Unusual Obstacles to Fire Control Operations. Many Firemen Injured

A Staff Report

Editor's Foreword: **The information upon which this interesting account is based was furnished by Alfred J. Galli, Deputy Chief of Department, San Francisco Fire Department, who was in command of fire fighting operations during the emergency in the absence from the city of Fire Chief Edward P. Walsh.**

The report of Chief Galli, who, it is disclosed, was laid up for fifteen days as a result of this fire, makes no attempt to dramatize or embellish the gruelling struggle of a large percentage of San Francisco's fire forces in controlling the stubborn fire described by press and radio as the worst in "many, many years."

The assistance of Chief Galli, and the San Francisco Fire Department are gratefully acknowledged. Appreciation is extended also to Mr. Joe Connell of the Phoenix Society, the city's alert fire buffs organization.

PROPERTY losses variously estimated at from $2 million to $3 million were caused by a mysterious fire on August 20, 1949, which virtually demolished the block-square Safeway Stores warehouse at 1945 Army St. in the Golden Gate City, causing injury to thirty-two firemen.

Building Covered Vast Area

The Safeways warehouse was completed eight years ago. In addition to serving as division warehouse for the company's stores, between Eureka and King City, the huge structure included a two-story business office for the division headquarters, which employed 100 persons.

The building was built of brick and concrete walls and floors and wood roof on steel supports. The structure measured 600 ft. length by 330 ft. width and occupied 198,000 square feet. An 80-ft. section at the east end housed the offices.

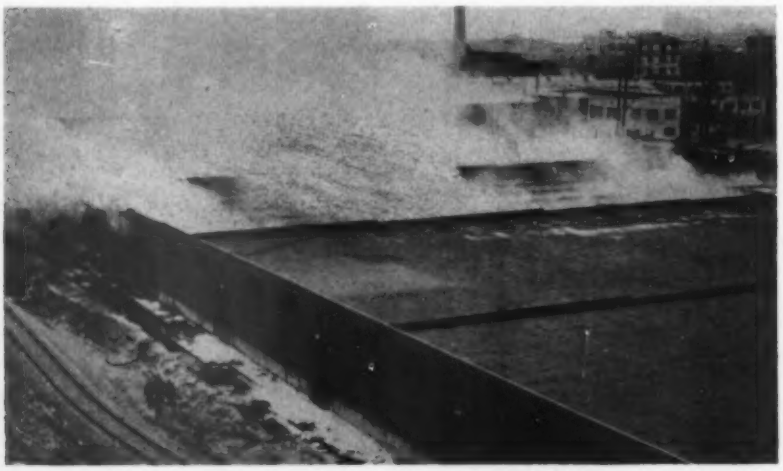
San Francisco Safeway Warehouse Fire at Its Height
Over 270 fire fighters, using fifty-one pieces of apparatus, fought costly fire that spread through fire doors of modern food warehouse. Note use of water towers.

The area was broken into five sections by four 12-in. brick walls, carried to 12-in. above the roof. The roof was of tar and gravel on wood sheathing. Each wall had five openings protected by single standard fire doors. A row of small metal frame windows, protected on the inside by heavy wire mesh, surrounded the outer walls at the level of the ceiling (see illustration). Openings were provided in the East, North and West walls. Each of the sections was provided with two freight openings, each opening having a single rolling steel door. The steel doors between the five sections were supposed to close automatically when temperatures reached a certain height.

The only accessible entrance to the entire building was through a main entrance to the office section located in the East end, on Army Street.

The building was believed fire-resistant and contained every known type of fire precaution equipment with the exception of an automatic sprinkler system. It was equipped with a Reichel Automatic Fire Alarm which was connected with a street fire alarm box of the fire department. Watchmen's service also was provided, with fourteen stations covering the premises.

An important factor in the construction, to the fire fighters at least, was the fact that there were no skylights or openings of any kind in the entire vast roof, nor were there any openings in the wall on Army Street. The building was well filled with merchandise, including large stocks of canned goods.



Daylight Discloses Partial Destruction of Huge Safeway Warehouse
Five sections of block-square building gutted in San Francisco is worst fire in years. Note construction, with partitions, large, unbroken roof areas and few wall openings. White substance alongside wall is soap suds created by fire streams.

Automatic Alarm Functioned

First intimation of the fire came when John R. Bolz, a watchman just after making his rounds, heard the automatic alarm sound.

This was shortly after 12:40 A.M. The watchman said he went to "repack section" in building section No. 3 and found a "lazy fire" burning close to the ceiling. Bolz said that as he rushed to call for help, one of the fire doors banged in his face.

The first alarm was received by the fire department from Box 2883 located on Army Street opposite Evans Street, at 12:44 A.M. The response by the companies was prompt and, on arrival, the watchman directed the first company through the main entrance on Army Street, to the section involved. Almost before that unit could get into action heat and smoke forced the men to withdraw.

Feeding on the combustible stocks, the flames spread quickly through the store goods into the sections nearest the Safeway offices. Although the doors between the sections functioned, Chief Galli reported they buckled when subjected to the intense heat and became wedged in closed positions. The radiated heat through the closed steel shutters communicated to stock stored against the doors, accounted for the rapid spread of the hot fire from one section to another.

Flames broke through the roof and leaped high in the air. One after another, the roof sections were consumed, while thousands of spectators thronged the hills north of Army Street. Until nearly 11:00 A.M. traffic in the Potrero district was snarled and Peninsular commuters and San Franciscans bound for work downtown detoured to Potrero Hill to watch the fire.

So threatening was the fire that for a time fire officials feared it would be necessary to evacuate the nearby Potrero Housing Project. As spiralling sparks threatened to ignite many old wooden buildings in the neighborhood, Chief Galli stationed fire forces brought in on the fire alarms and special calls throughout the area to guard against subsidiary blazes. The Soule Steel Company at 1750 Army Street and the P.G.&E. natural gas tank at Army Street and Evans Avenue likewise received special attention of fire fighters because of their exposed positions. Eight or nine Safeway trailers parked near the delivery entrance were seriously threatened and were pulled away about 2:30 A.M.

Firemen Slip in Suds

As the fire spread, staccato explosions occurred when stores of canned goods burst under the heat. Firemen, struggling to advance lines, were almost immersed in suds which formed as hose streams broke open boxes of soap flakes and other detergents. A number were injured in this wise. The greater number of the thirty-two casualties, however, resulted from smoke narcosis and poisoning. Cuts, stepping on nails and burns accounted for the balance of the injuries. Five firemen were hospitalized.

Of the five sections of the building, the contents of three Easterly sections were almost completely, consumed although there was no collapse or weakening of either the exterior or interior walls. The area consumed was approximately 112,000 sq. ft.

The rapid extension of the fire and the nature of the building and contents forced firemen to attack almost entirely from the exterior. Efforts to get at the spreading blaze through roof areas was unsuccessful and to persist in it doubtless would have needlessly risked the lives of men.

The fire was believed controlled about three hours after the first alarm, although fourteen hours later streams were still being operated on the ruins. The actual period of operations was over 17 hours.

No Delay in Calling Aid

According to the report of the fire department the chronology of alarms and summary of operations was as follows:

Box 2883, Army St., Opposite Evans Ave.—

First Alarm—12:44 A.M.
Second Alarm—12:50 A.M.
Rescue Squad—12:56 A.M. (Special Call)
Third Alarm—12:59 A.M.
2 Ladder Trucks—1:03 A.M. (Special Call)
Large Water Tower—1:04 A.M. (Special Call)
Searchlight Unit—1:10 A.M. (Special Call)
Fourth Alarm—1:18 A.M.
3 Water Tank Wagons—1:38 A.M. (Special Call)
3 Engine Companies—1:39 A.M. (Special Call)
Small Water Tower—1:41 A.M. (Special Call)
Fifth Alarm—1:53 A.M.
2 Water Towers—1:56 A.M. (Special Call)
1 Hose Tender—2:00 A.M. (Special Call)

Total equipment responding: Chiefs, 9; Engines, 25; Ladders, 9; Water Towers, 4; Hose Tenders, 5; Water Tank Wagons, 3; Searchlight Trucks, 2; Rescue Squad, 1; Utility Squad, 1; Fuel Truck, 1.

Total manpower used in operations: 272 (45 Officers, 227 Firemen).

Hose Streams: 62, as follows: 32 Low Pressure Streams, for 17 hours and 25 minutes; 30 High Pressure Streams for 5 hours and 30 minutes; in addition, 3 Tank Wagon Streams, using 700 gallons of water.

Hose used: 2,150 ft. of 3½-in.; 10,800 ft. of 3-in.; 20,000 ft. of 2¾ in. and 600 ft. of 1-in.

Ladders used: Total of 999 feet.

Time of extinguishment: 17 hours and 25 minutes. Fire Department was in service at this fire 23 hours.

Hydrants were adequate, both low and high pressure, and water supply was ample.

Following the fire, an investigation into the possible causes of the destructive blaze was conducted by Lieutenant George Kelley. According to the Lieutenant, there was "no reason why the fire should have started." He emphasized the fire resistant construction of the building and said that while the origin of the blaze remains a mystery, the fire started in the center of section four of the huge structure.

The possibility of arson was not overlooked by investigators but Lieutenant Kelley said "I have no one to pin it on," and added "But I cannot understand how the fire started or why it mushroomed so fast."

Safeway President, Lindgen A. Warren, said the damage was about $3 million and the loss was fully covered by insurance.

FREEPORT GARAGE FIRE CAUSES HALF-MILLION DOLLAR LOSS

Gasoline Tanker Explosion Blows Out One Side of Building

By Bill Garson

PUNCTUATED by the explosions of automobile and bus gasoline tanks and by one blast from a loaded gasoline transport, one of the most disastrous fires in the history of Freeport, Ill., caused upwards of a half million dollars damage when it destroyed a block-long garage building and 41 vehicles on Oct. 14.

The fire, originating in a forced air blower motor in the east end of the building which was erected in March, 1946, called out Engine companies No.1, 2 and 3, Aerial company No. 1 and the salvage squad as well as all off-duty firemen.

Engines 1 and 2, the salvage squad and the truck company answered the first alarm with Chief Albert Luedeke and Assistant Chief Roy Pontius. The second call brought Engine 3 and all off-duty firemen.

The building housed the Ford Sales and Service company and the Coach corporation of Freeport. The adjacent Klapp Motor Sales, although separated from the destroyed building by a double brick wall, suffered damage amounting to about $25,000 in addition to the $500,000 estimated by Harry L. Meyers, president of the Ford agency and part owner of the Coach corporation, Freeport's bus transit system.

Charred Remains of New Automobiles, Buses and Trucks Are All That Remained After a Disastrous Fire Swept the Ford Sales and Service Company and the Coach Corporation of Freeport at Freeport, Ill., October 14. Photo Above Shows Firemen Wetting Down Still Smoldering Ruins (Center Background). At Lower Right Is Gasoline Transport Truck Which Exploded and Blew Out One Wall of the One-Story Building

Destroyed in the blaze were eight new 27-passenger city buses, a new U. S. mail truck used for parcel post deliveries, five farm tractors, 12 trucks and 15 new and used automobiles, and the gasoline truck.

The destruction of the buses caused serious curtailment of Freeport's transportation system in the city of 30,000 for several days until new coaches could be obtained from nearby cities on a temporary basis. Fifteen-minute bus schedules were increased to 30 minutes during the emergency.

Intense heat of the flames, which broke 139 windows in the post office building across an alley from the garage, and the explosions kept firemen at a disadvantage. The tremendous blast of the gas transport truck blew out one side of the building.

The alarm went out at 4:26 a.m., after a night garageman, smelling smoke, detected the fire in the motor of the blower fan and tried unsuccessfully to snuff it out with a fire extinguisher. Roof of the one-story building was involved when firemen arrived.

TIMELY TOPICS FEATURE MEETING OF PACIFIC CHIEFS' ASSOCIATION

Outstanding Display of Fire Apparatus and Equipment Provided; Demonstrations Prove an Interesting Feature

THE Fifty-Fourth Annual Convention of the Pacific Coast Inter-Mountain Association of Fire Chiefs in Pasadena, Calif., set new records in enthusiasm, attendance, business sessions and entertainment, according to FIRE ENGINEERING's Western correspondent. The dates, Sept. 18 to 21 inclusive, made it possible for many of the Chiefs to attend both the Pacific Coast sessions and the New Orleans Conference of the International on the 26-29th, a special train leaving Pasadena on Thursday noon for New Orleans.

Fire Chief William Meinheit of Berkeley, Calif., opened the Conference on Sunday, Sept. 18, at the Municipal Auditorium, Green St. and Garfield Ave. in Pasadena, at 10:00 A.M. A Board of Directors meeting was held at 11:00 A.M.

After a musical prelude by the Pasadena College Bulldog Band, the official Tournament of Roses musical organization, Rabbi Max Vorspan gave the Invocation, following which the Band led in the National Anthem. The soloist was Karen Larsen and the Director of the Band is Audre Stong.

The Pledge of Allegiance to the Flag was led by Chief Louis Ledford of Palo Alto, Calif., President California State Firemen's Association. Then came the address of welcome to the delegates by the Honorable A. Ray Benedict, Mayor, City of Pasadena. This was ably responded to by Fire Chief John H. Alderson of Los Angeles, Calif.

To Chief C. L. Bolz, Host Chief, fell the honor of introducing the many notable guests, after which President Meinheit delivered his "accounting of stewardship" which found the Association in excellent condition.

The impressive memorial services for the departed members opened with an organ prelude by Gene Sullivan, Musical Instructor, Pasadena City College, followed by an address by Rev. Eugene Carson Blake, Pastor, Pasadena Presbyterian Church.

At noon the delegates and guests participated in a stag get-together luncheon at the Green Hotel at which Jay Stevens presided. The afternoon was given over to drills and demonstrations at the Drill Ground south of the Rose Bowl. This was participated in by firemen and equipment from Los Angeles County, Arcadia, South Gate, Pasadena, Alhambra Los Angeles, Muroc Air Base, and exhibitors of the Conference.

Tuesday's sessions were loaded with business. The first topic was handled by Chief C. J. Eisenbacher, Tacoma, Wash., who was introduced by Chief J. L. Stevenson of Stockton, Calif. Chief Eisenbacher took for his subject "Fire Department Administrative Planning."

Harry J. Boyle, General Adjustment Bureau, Inc., of San Francisco, spoke on "On What Basis Are Fire Insurance Adjustments Made? Can the Fire Chief Be of Assistance? Do Insurance Agents Encourage the Policy Holders and Adjusters in Making Loss Adjustments Over and Beyond the Actual Losses?"

A pertinent topic "How the Police and Fire Departments can Better Understand Each Other for the Betterment of Themselves and the Various Cities They Represent" was given by Police Chief J. B. Holstrom, of Berkeley.

Chief William Meinheit (Right), Retiring President of the Pacific Coast Inter-Mountain Association of Fire Chiefs, Explains to Brother Officers Something of Interest at Annual Convention

Robert Coop, City Administrator of Inglewood, Calif., spoke on "Personnel Relations in the Fire Service and How it Affects the Other City Departments."

The Aquacade Luncheon at the Huntington Hotel Terrace was followed, at 2:30 P.M., by afternoon business sessions, presided over by Chief William Fitzgerald of Seattle, Wash., First Vice-President.

An interesting paper on "How the City of San Francisco Conducts its Fire Training Program" was delivered by Chief Edward Walsh of that city.

The next subject "Necessity of Interdepartmental Co-operation in the Fire Department; and Fire District Taxes" was presented by the Honorable Raymond V. Darby, Supervisor, Los Angeles County.

View of Exhibit Hall at Convention of Pacific Coast Inter-Mountain Association of Fire Chiefs, Pasadena, Cal.

"Arson as a Weapon of War" was the subject discussed by Special Agent W. C. Skousen of the FBI. The final topic of the afternoon was "Applied Psychology in the Fire Service" and it was handled by John Rathmell, Pasadena City Schools.

One of the Fire Extinguishing Demonstrations at the Convention of the Pacific Coast Inter-Mountain Association of Fire Chiefs

Wednesday's business sessions, with Chief Meinheit presiding, included the following topics and speakers: "Fire Prevention Inspection Methods," by Senior Inspector Robert W. Gain, Burbank, Calif.; "How a City Manager Views the Fire Department Budget," by Robert McCurdy, Assistant City Manager of Pasadena; "Fire Departments Should be Prepared for a Shock," by Chief William Fitzgerald, of Seattle, Wash.; "Aircraft Fires; Protection and Prevention," by Chief Leslie M. Button, Victorville Air Force Base, Victorville, Calif.; "The Problems of a Newly Appointed Fire Chief," by Chief Gayle V. Coger, Fresno, Calif.; "Fire Department Press Relations," by Chief C. L. Bolz; "The Number One Phase of Fire Control," by Chief J. T. Caldwell, Ellensburg, Wash.; "What the Chief of Los Angeles Thinks of Volunteer and Small City Fire Chiefs," by Chief John Alderson; and "How Can a Fire Chief Prepare His City for an Underwriters Survey?", by Chief David Glines, South Gate, Calif.

Election of Officers

Following these heavy business sessions the annual business of the Association was transacted on Thursday ending with a reception at 7:30 P.M. in the Hotel Huntington, given by the Pasadena Fire Department, after which came the annual banquet in the same hotel, the speaker being Dr. James Whitcomb Brougher, Jr.

The high point of the final day's business was the election of the officers for the coming year. Those chosen were: President, Chief William Fitzgerald, Seattle, Wash.; First Vice-President, Chief William Taylor, Burbank, Calif.; Second Vice-President, Chief Wm. Batchelor, Pendleton, Ore., and Secretary-Treasurer, Ex-Chief Jay Stevens, San Francisco.

Directors chosen for the ensuing year include: Chief William Meinheit, Berkeley, Calif.; Chief Jack Marsten, Stanford University, and Chief Chas. Eisenbacher, Tacoma, Wash.

New York Salvage Men Lose Lives in Building Collapse

Two members of New York City's Fire Patrol, operated by the New York Board of Fire Underwriters, lost their lives early on the morning of Saturday, Oct. 15, 1949, when the old structure in which they were operating collapsed suddenly, burying them in the debris. They were Daniel P. Shea and Frederick C. Lehmann, both members of Fire Patrol No. 3, 240 W. 30th St., Manhattan.

They had reported with their Section in response to an alarm of fire from Box 576, Sixth and 17th St. at 11:59 P.M. on the 14th, and with fellow patrolman William Haack, were ordered to spread salvage covers over material on the lower floor while firemen were operating lines above them in an effort to control a fire that was involving the upper stories.

The building, at 21 W. 17th St., was a five-story re-built residence 25 x 90 ft., of uncertain age. Of brick and wood joist construction, it had a new false front and the rear had large bay windows of ancient vintage.

The structure had a mixed occupancy, with luncheonette and barber shop in the basement, printing on the first floor, miscellaneous stocks on the second; clothing on the third and cardboard stock on the fourth.

The fire is said to have originated on the second floor but, on arrival of firemen, it appeared centered on the third floor and it was to this location that twenty firemen under Acting Battalion Chief James Maloney of the 7th Battalion worked their way with hose lines, while fellow firemen laddered the structure, and attacked the fire from other vantage points.

At about 12:30 A.M. the building shook, and all five floors fell into the basement, leaving only a single staircase standing. The firemen working on the third floor were saved when Acting Chief Maloney (Eng. 34) sensed the impending danger and shouted a warning for the men to drop their lines and get out of the structure. As the last man reached the street the building crumbled.

The salvage men were trapped in the wreckage but Salvageman Haack, his ribs crushed, was able to crawl into the hallway where he was rescued and removed to St. Vincent's Hospital.

The crash came after heavy volumes of water had been directed into the upper stories from hand lines, the water tower and deck pipes. Assistant Chief Guinee, who had responded earlier upon receipt of notification that "all hands" were in fighting the fire, ordered a second alarm at 12:48 A.M., and Fire Chief Peter Loftus was en route to the fire when the collapse occurred. Upon his arrival he took charge of the work of attempting to rescue the two victims.

At 12:48 A.M. pressure on the high pressure service was raised to 150 from 125 pounds and a little later Fire Department Ambulance 1, was special called, followed between 1:31 and 1:42 A.M. by special calls for Ladders 24, 7, 9 and 21. Fire Alarm headquarters at the same time re-located Ladders 4 (in 24) 22 (in 21) and 1 (in 9).

At 3:25 A.M., the rolling canteen was called to the scene as weary firemen dug frantically for the missing Salvagemen. Extra men were brought in from other Boroughs as the workers needed relief, but the precarious condition of the wreckage made the rescue efforts difficult and dangerous. About 70 firemen labored through the night,

Last Fireman Leaving the Building at 21 West 17th Street, New York City, an Instant Before the Floors of the Structure Collapsed

aided by flood and search lights, some standing waist deep in water, removing beams timers and merchandise. Holes were broken through the adjoining building at No. 23, and pumps were put to work to draw off the accumulated water in the basement.

Patrolman Lehmann's body was recovered at 4:40 P.M. and Shea's at 11:15 P.M., nearly a day after the first alarm. The Superintendent of the New York Fire Patrol is William A. Espey. The officer in command of Patrol 3 at the time of the fire was Sergeant Campbell. His men had spread 42 covers prior to the crash.

The fire companies operating on the fire were: Engs. 14, 18, 72 and 3; Ladders 12 and 3; Rescue 1, and Water Tower 2, with an Acting Deputy Chief of the 3rd Division, and Acting Battalion Chief of the 7th and Battalion Chief of the 6th Battalions. On the Second Alarm: Engs. 1, 5, 24 and 16; Ladder 5. Ladders 24, 7, 9 and 21; Searchlight 21; the Field Canteen and Fuel Wagon 12.

Hot Fire Threatens Downtown Philadelphia

When the walls of a blazing seven-story building in the heart of Philadelphia's business district fell, burning embers ignited fifteen buildings, some as far as three blocks from the scene. Most of these fires were on rooftops and were quickly subdued by firemen using portable extinguishers. However, the extensions gave fire officials of the city some moments of anxiety as reports of one fire after another were received.

The original fire, in a large vacant building on Sansom Street that was in process of demolition, was discovered at 10:00 A.M. by a passing police officer. It had made such headway that four alarms were sounded in fast time, bringing more than 40 pieces of fire apparatus and large complements of fire fighters to the area.

The fire, which was fought with heavy streams, from all sides and points of vantage, was reported under control an hour later, but shortly burst forth again with a roar that could be heard for blocks. At this stage, large sections of the walls crashed to the narrow street, throwing chunks of burning wood into the air to fall on neighboring roofs and endanger exposures. The neighboring St. Francis Hotel was ignited, forcing 45 guests to leave the building, although damage to the structure was reported not extensive. A small fire also broke out on the roof of the St. James Hotel, three blocks away. This also was quickly extinguished. As a dramatic climax, a piece of fire apparatus was struck by flying embers and some equipment set ablaze.

A huge section of one wall of the burning building, fell in one piece, crashing through the roof of an adjoining restaurant, which fortunately had been cleared of people a short time earlier.

Six firemen were hurt in the struggle, none seriously. None of the hundreds of hotel guests and store employes who fled the scene was injured.

Chicago vs. Smoking

In one of Chicago's big department stores an elevator operator held open the doors of his car and waited for customers to step in. A gentleman approached and entered the elevator. In his hand he held a cigar.

"I'm sorry, sir," said the operator politely, "but I can't take anyone up if they're smoking. See that notice over there?"

The customer objected, but the operator quitely refused to close the door until the man had stepped out, put out his cigar and returned to the car.

At the entrance of every department store in Chicago, a large sign has been posted stating that smoking within the premises is forbidden by law.

In addition to this, all elevators carry signs bearing a similar caution and, in most cases, elevator operators have been instructed not to move their cars while people in the elevator are smoking or holding lighted cigars, cigarettes or pipes.

The actual wording of the non-smoking ordinance reads in part: "Be it ordained by the City of Chicago: . . . It is unlawful for any person to smoke or carry a lighted cigarette, cigar or pipe in any public elevator or in any retail store in which more than fifteen persons are employed, excluding areas set apart for serving food or beverages, waiting and rest rooms, executive offices, beauty parlors and other rooms or areas where merchandise is not exposed. . . ."

In addition to retail stores, this rather rigid ordinance applies equally to hotels and other buildings of similar occupancy character where fifteen or more people are employed.

—FIREMEN'S FUND RECORD

Ignition Temperature of Wood

Wood placed in an oven at 700°F. catches fire almost immediately. At oven temperatures of 450°-500°F., the wood gradually chars and usually ignites after several hours.

"Pyrophoric carbon," formed when wood slowly chars, absorbs and combines rapidly with oxygen. This produces heat which under certain conditions causes the charred wood eventually to catch fire at temperatures well below those required to ignite the original wood. Cases are recorded where wooden flooring in contact with steam pipes at 250°-300°F. has caught fire after years of exposure.—FACTORY MUTUAL RECORD.

Philadelphia Fire Lessens Work of Wreckers But Adds to Firemen's

Roaring fire which demolished old building on Sansom Street in city's business district necessitated four-alarm response of over forty fire units to control it and fifteen other lesser fires which it started. View taken shortly before wall fell.

Philadelphia Firemen Escape Falling Wall of Blazing Structure

Collapse of wall of seven-story building in mid-city released embers to start other minor fires in neighborhood, necessitating evacuating of hotels and stores, keeping firemen on the jump. Six firemen were injured.

Nine Departments Fight Theatre Blaze

Only the brick walls of the Princess Theater, at Rockville, Conn., remained standing following a fire which swept through that three-story structure on September 15. The blaze wiped out the 500-seat theater, the Princess Ballroom, and a rathskeller. The loss, according to a survey made by Fire Chief William Conrady, was in excess of $100,000. Three members of the Rockville Fire Department were overcome from smoke while fighting the fire.

Flames from the fire, the worst in that town in several years, were visible for miles. As the raging blaze threatened neighborhood buildings in the business district, a general alarm was sounded, bringing apparatus from nine communities, Manchester, Ellington, Crystal Lake, Vernon, Dobsonville and Talcottville. In addition, State Police emergency equipment was dispatched from Colchester and Hartford Barracks.

The Princess Ballroom, where the fire was believed to have started, was being redecorated. The theater had closed about an hour before the fire was discovered. The building was erected in 1897 and is now owned by the Frank Mann Estate and leased to William Bassett, a resident of Florida. The cause of the fire was not determined.

TOM MAGNER.

New York Garage Blasted

A five-story garage at 148 W. 20th St., Manhattan, New York City, was virtually wrecked by an explosion and fire on October 3, 1949. A garage attendant was critically injured and a fireman and policeman who rescued him were burned.

The blast, at 9:57 A.M., blew out many windows on that block between Seventh and Sixth Avenues, showering some persons with glass and reducing to rubble the rear wall of the garage, most of the roof and parts of the floors. Nearly 100 cars stored in the structure were ruined by the explosion or fire. Damage was estimated at $200,000.

Firemen responding to three alarms fought the resulting fire for more than three hours to keep it from extending to two apartment houses to the west. At one time as final units of the department were preparing to pick up, the flames broke out again, but were quickly extinguished.

The explosion is believed to have been set off by ignition of gasoline vapors that had filled the building, evidently as a result of an overflow in filling the sub-basement tanks through a sidewalk outlet. Fire Marshal William P. Murphy said that about 20 minutes before the accident gasoline had been delivered at the garage and had overflowed when being poured from a tank truck. The garage attendant, noticing the gasoline overflowing on the main floor of the garage, called the driver to cut off the gasoline flow. This was done; then the attendant poured water on the floor to wash away the fuel, estimated by Marshal Murphy at about 30 gallons.

Vapors from the overflow extended into the building and were evidently ignited by an air compressor used to pump tires, when the electricity tripped on the machine.

The attendant, Morris Aughtman, was blown into the basement and, though his clothing was afire, was able to crawl under a sidewalk grating through which he was pulled by rescuers.

Following, fire spread throughout part of the wrecked building but was soon controlled by firemen although final extinguishment took some time.

The chronology of alarms and response follows:

9:55 A.M.	Box 596 Seventh Ave. and 21st St. Engs. 14, 3, 1, 18; Lads. 12, 24; Dep. Ch. 3, Batt. Ch. 7
10:01 A.M.	Second Alarm, Box 596. Engs. 72, 26, 16, 34; Lad. 5; Rescue 1; Water Twr. 3; Chf. of Dept. Relocate: Engs. 40/3, 44/1, 27/18, 21/16; Lads. 4/24, 1/5
10:05 A.M.	Third Alarm Box 596. Engs. 24, 5, 30, 65, 54; Lad. 3; Batt. C. 9; Gas. Oil Unit 12. Relocating: Engs. 28/5, 32/30, 18/3, 53/65; Lad. 18/3
10:17 A.M.	Increase H.P. to 150 Lbs.
10:25 A.M.	Foam Powder Unit.
5:35 P.M.	Searchlight Unit

Buffs More Than Gawkers

According to some observers, fire buffs—that avid clan of adherents of the fire service and chasers-after-fires—can be a blessing or a bane to the local fire departments.

A bit of research discloses that buffs organizations in the former category are on the increase, whereas the demise of such clubs in a number of cities over a period of years, may be attributed to the latter reason, to wit: they were a hindrance to the department.

One of the cooperative, alert organization is the Box 8'ers of St. Louis, Mo., which organization has vicariously found mention in these pages.

Since its inception in 1941, the Box 8 Club has been trying to prove that its members are anything but gawkers. They have at least partially solved the problem of rendering aid unobtrusively without getting in the way, by performing a number of services for the department.

The By-Laws of the Box 8 Club contain these provisions, among others:

"Members shall not perform any duties at a fire unless so ordered by the officer in charge, and are to stand back so as not to interfere with the firemen."

When opportunity presents, however, they can and do go into action. If, for example, the firemen get soaked and need dry clothing, a Box 8'er will return to the firehouse for dry duds. If it's a tough 'worker,' club members will man the coffee wagon to serve refreshments. On occasion, members have taken firemen to the hospital. Most of the Box 8'ers have received instruction in first aid and such details as the 'fireman's carry'.

Mid-Manhattan Garage Wrecked by Gasoline Blast and Fire
Fast work by firemen confined threatening fire which followed an explosion of gasoline fumes, critically injuring a garageman; loss $200,000.

Maine Trainers and Fire Fighters

Sparkplugs of the State's Firemen's Training Program. Left to right: Maurice Varney, Supervisor, State Department of Education; Arthur Emmons, Fire Chief, Saco; Ed. Pullen, Asst. Chief, Oakland; Fred Hammond, Asst. Chief, Sanford, and Fire Chief Allen Payson, Camden, Me.

The Club's monthly meetings are held at the Fire Department Training School, 12th Boulevard and Spruce Street, and are devoted to discussing fire prevention, fire apparatus, fire operations and other matters dear to the heart of the buff, and the fire fighter. The Club is engaged in a year-round fire prevention drive, which peaks in September and October. It furnishes speakers to civic organizations and other groups interested in cutting down fire losses.

Al McDonnell, Jr., one of the founders of the Club, with his father, Wallace McDonnell, another fire preventionist, received recognition from the late Fire Chief Joseph Morgan, who was to meet his death at a fire, when they first broached the idea of such an organization to him. The Club, now 29 strong, has received official recognition; its members carry badges and membership cards and are always "on the button!"

Paid Wisconsin Firemen Meet

The annual convention of the Wisconsin Paid Firemen's Association was held in Watertown, Wis., Aug. 1 and 2, the following officers being elected: president, John Kromel, Kenosha; vice-president, Fred Johnson, Superior; secretary-treasurer, Joseph Cheplak, West Allis. Members of the Executive Board are: Bruno Geschrei, Milwaukee, Nick Muenzenberger, Milwaukee; Emil Ristow, Oshkosh; Carl Pishion, West Allis and Walter Johnson, of Merrill.

William B. Greco retired after serving as President since 1944. The site of the next convention will be determined at the December Board meeting.

Maine Training Progresses

Firemen's training in the State of Maine is progressing under the supervision of Maurice Varney of the State Department of Education.

Four instructors, taken from the ranks of the fire service, conduct the field work. They also assist the State Department of Education in planning the courses, which are of eight hours duration. Upon completion of the course, men receive certificates.

The courses presently offered include simplified hydraulics; hose and ladder care and evolutions; ventilation; forcible entry; fire department knots; small tools and their use and extinguishers.

Communities in which the courses are held are permitted to select subjects which are believed most required for the local firemen.

Several schools have been held in Aroostook County with considerable success; one in Hancock County had an attendance of 175 men, and as this is written one is soon to start in Waldo County.

Fire Chiefs on Maine Safety Conference Program

The session on fire prevention was acclaimed as outstanding at the 22nd Maine State Safety Conference held in Poland Springs, Me., September 15, 1949. Nearly half of the 475 delegates to the conference took in some part of the fire prevention program which climaxed with a spectacular demonstration of latest fire fighting methods.

Portland's Fire Chief Oliver T. Sanborn, with Chief William H. Clifford 3rd of Cape Elizabeth, represented the New England Association of Fire Chiefs as delegates. Chief Sanborn, who appeared on the program, praised a Maine regulation put into effect two years ago requiring hospitals to pass a fire inspection.

Hospital protection and the St. Anthony Hospital tragedy were also discussed by James McElroy, of the National Fire Protection Association. The conference ended with a luncheon at which the speaker was Gov. Frederick G. Payne.

Mecklenburg County Weighs Fire Fighting Problems

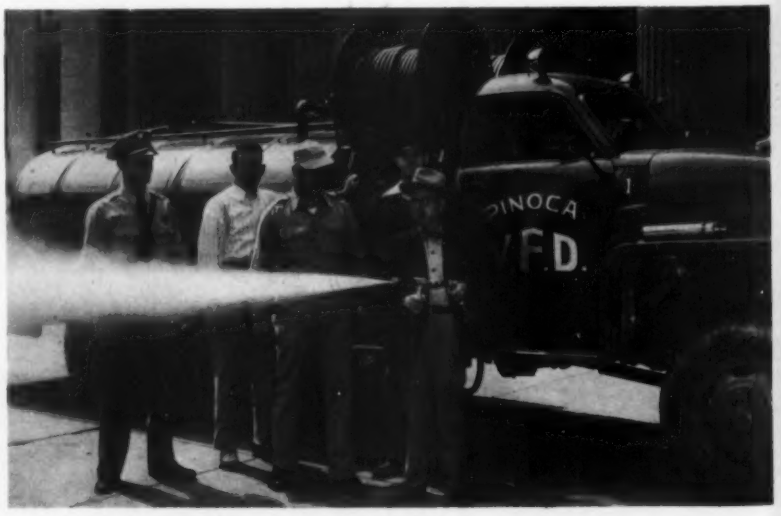
The policy of extending financial aid to volunteer fire departments being organized in areas lying just outside the city limits of Charlotte, N. C., was discussed by the Mecklenburg County Commissioners in Charlotte September 12 last. At the same time, the question of countywide fire protection by the Charlotte Fire Department was reviewed.

The city department now answers alarms outside Charlotte, the calls being relayed through the Mecklenburg County Police Department. For this service the Mecklenburg county government pays a flat sum of $2,400 a year standby fee, and $50 a trip. The trip cost is billed to the property owner where the fire happened.

Chief Donald Charles of the Charlotte Fire Department explained to a mass meeting held on September 20, for the purpose of insuring residents and businesses of the county adequate fire protection, that the city fire equipment is so designed that "adequate protection" in the outlying areas is often impossible. He said that all technical knowledge of his department is at the disposal of the volunteers and that he and his staff expect to do everything possible to aid in the establishment of a volunteer network of fire stations.

Several of these volunteer departments are already organized and others are in process of organizing in the county area. The question of providing the necessary fire fighting facilities to these volunteers was discussed by the Commissioners at the September 15th meeting and later, at the public mass meeting, both held at the Charlotte County Courthouse. The Charlotte

(*Continued on page* 890)



Pinoca, N. C., Volunteers Demonstrate to County Officials

At the meeting of Mecklenburg County Commissioners, held to weigh problems of county fire protection, the Pinoca volunteers showed off their high pressure tank-pumper. Here, Sid McAden, Chairman of Commissioners, is at the nozzle while (left to right) Lt. Swearengen of the Police, Assistant Chief Craig Lawing, Chief Garman McCall and Assistant Chief Grady Tadlock look on.

Left to Right: C. T. McGraw and Grace C. Clark of Circul-Air Corp. explaining their product to Frank Tilley, U. S. Rubber Co., Chief John F. McDonough, Boston, Chief Arthur Flynn, Salem, Mass. and Chief Charles B. Kuhl, Sioux City, Ia.; Chief August Sokol, Sheboygan, Wis., Chief Edward J. Page, Madison, Wis., and Chief Julius Seiy, Cudahy, Wis.; Chief Joseph A. Kirby, Dayton, Ohio, on boat; Commissioner M. J. Corrigan, Chicago, James Flynn, Potter Manufacturing Co., Chicago, Deputy Chief Patrick Burke, New Orleans and Chief William Schuls, Elgin, Ill. (Photos by C. E. Goodman).

Left to right: Chief and Mrs. Connie O'Sullivan, Memphis, Tenn.; Chief Henry Chase, Miami, Past President, I.A.F.C. and Chief William J. Cawker, Topeka, Kans., President, I.A.F.C.; Chief Alfred H. Koltonski, Rutland, Vt., and his helpers at the registration desk; Chief Edward Wischer, Milwaukee, Wis., and Chief Paul Heinz, New Haven, Conn. (Photos by C. E. Goodman).

Left: New Jersey Fire Chiefs enjoying the sun on the sail around New Orleans Harbor (Photo by K. B. Ridley); Center: A lot of Flynns (left to right) James Flynn, Potter Manufacturing Co., Chicago, Mrs. Tom Flynn, Cincinnati, Mrs. Bess Flynn, Chicago, Charles Flynn, Chicago, Tom Flynn, Eureka Fire Hose Div., U. S. Rubber Co., Cincinnati, and James Flynn, Jr., Chicago. (Photo by C. E. Goodman). Right: Eastern Chiefs inspecting Atlanta Fire Department floodlight apparatus during stay-over at that city (Photo by K. B. Ridley).

Left to right: Chief Howard L. Dey, New Orleans, La., and Commissioner M. J. Corrigan, Chicago, Ill.; Chief W. C. Thompson, Athens, Ga. and Chief Hubert Smith, Tucoa, Ga.; Chief Barney Houston, Cincinnati; Chief Frank Vernotzy, Akron, and Chief Patrick Daly, Toledo; Chief Edward Rector, Grosse Point Park, Mich., and Chief C. A. Crosier, Battle Creek, Mich. (Photos by C. E. Goodman).

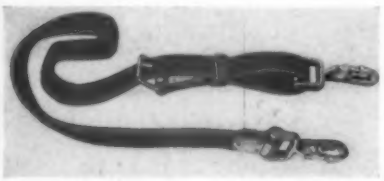
Left: President-Elect W. J. Cawker (right) presents, in the name of the Association, the Retiring President Henry R. Chase with diamond ring. Center: the official family of the International Association of Fire Chiefs for 1949-1950. Left to right: Chief Rudolph Swanson, Jamestown, N. Y., Second Vice President; J. W. Stevens, San Francisco, Cal., Executive Secretary; Chief William J. Cawker, President; Chief Daniel B. Tierney, Arlington, Mass., Secretary-Treasurer, and Chief John H. Alderson, Los Angeles, Cal., First Vice President. Right: President Henry R. Chase (right) presents bronze tablet to Fred Shepperd, Editor, FIRE ENGINEERING at annual banquet.

SNAPPED AT THE I.A.F.C. CONVENTION, NEW ORLEANS, LA., SEPTEMBER 26-29.

News of the Manufacturers

Nylon Safety Strap

Tests have been completed on a nylon safety strap, now in production by the Buckingham Manufacturing Co., Inc. of Binghamton, N. Y. The results of laboratory and field tests show qualities of strength, durability and flexibility in comparison with belts made from other fabrics and leather, according to Walter E. Craw, company president.



Nylon Safety Strap

In this new Buckingham safety strap, multiple plies of nylon, specially woven from high-tensile fibres, are laid together in neoprene and vulcanized. This construction achieves the desirable combination of pliability, ease of handling and lightness with strength.

Stronger than harness leather, nylon also provides extreme resistance to abrasion. Even in severe cold, the strap keeps its flexibility. Since this strap is unaffected by any substance with which it might come into contact, long life is assured, it is claimed.

Hydra-Lizer for Ladders

A hydraulic ladder attachment that automatically corrects unlevel ground conditions and provides maximum safety for ladder users has been announced by the Anderson Products Co., of Tulare, Calif.

Inter-connected hydraulic units displace oil from one leg into the other, as ladders are erected, to correct differences in terrain from hillsides to stairways. By moving a foot operated valve lever the ladder can be instantly locked in any position desired.

The "Hydra-lizer" has undergone two years research and testing with fire departments, Southern California public utilities, and others and now is being adopted as standard equipment.

The unit is unique as it is designed to be easily attached to all types of ladders, wood or metal, straight or flared base. Telescopic steel tubing automatically adjusts to the proper width and the unit can be reused on ladders of different dimension.

The "Hydra-lizer is designed to meet the need for a strong, lightweight, automatic ladder equalizer to be able to operate under all conditions and stand abuse. A ball and socket shoe to conform to all irregularities of terrain along with its ability to be instantly flipped up on end for ice, slippery asphalt and soft ground conditions make a combination of all the best features of ladder shoes.

The "Hydra-lizer" is constructed entirely of steel for working loads of over five hundred pounds and weighs only six pounds.

New Trade Name for Aluminum Ladder Products

Aluminum Ladder Company, Worthington, Pa., has announced that its products will now be sold under the trade name "Alco-Lite" to distinguish them from like products which are made of aluminum. The Aluminum Ladder Company is the original manufacturer of Aluminum straight ladders, step ladders, extension ladders, and fire ladders and also manufactures aluminum gangways.

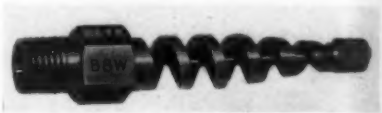
Rockwood Announces New Valve

The Rockwool Sprinkler Company has designed a new cast steel ball type valve for refinery, pipe line and general use. The new product is designed and built for superior service, combining the best features of plug cocks, gate and globe valves. It is equipped with a floating ball and resilient, synthetic rubber seat, and the company states it will handle fluids faster and more economically and will not leak after continued use.

The Rockwood Cast Steel Valve can be fully opened and closed with a quarter turn and, in the new sizes, it has the same features of the ½-in. to 2-in. Rockwood Ball Valves described in Rockwood bulletins. Literature is also available on the new 3-in. and 4-in. Cast Steel Valve. The new valve is expected to be available to the trade in November.

New, Different Fog Nozzle

A new spray nozzle which operates on a radically different principle, has just been announced by the manufacturer, the Bete Fog Nozzle Company of Greenfield, Mass.



Bete Fog Nozzle of Unusual Spiral Design Which Produces Extra Fine Atomization at Relatively Low Pressures, Yet Is Practically Non-Clogging

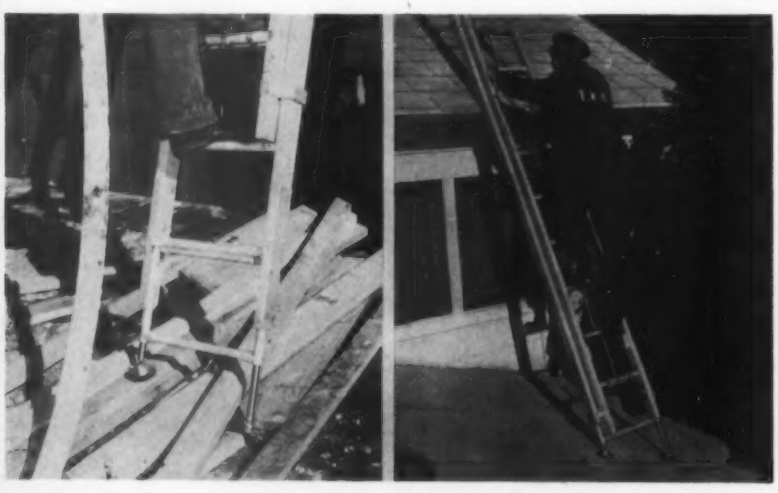
New Bete Nozzle Produces Rich Fog Pattern

The new nozzle, on which patents are pending, has a unique spiral design that produces a finer atomization of water yet is practically non-clogging, according to the manufacturer. The nozzles shear from a single, high velocity jet a continuous film which readily breaks up into uniformly fine particles at relatively low pressures. No vanes or whirl discs are required with this type of nozzle, it is claimed.

The Bete Company is producing the new type nozzle in various spray patterns and with flow rates from one-quarter GPM to 100 GPM. The products can be used for all kinds of spray problems, the manufacturer states, where a fine water breakup at low pressures is required.

In a special communication to this Journal, Mr. John U. Bete, president of the Company states that the Bete nozzle has been tested on fires with highly successful results. The tests are continuing in order to determine certain superior spray patterns for fire fighting, both with portable "guns" and for fixed installations. Among the agencies that have reportedly seen and tested the product are: Boston Fire Department; U. S. Navy; Greenfield Fire Department; Stoughton, Mass. Fire Department and Framingham, Mass. Fire Department.

The basic idea of the new nozzle was



Left: Close-Up of Hydra-Lizer Showing Details of Construction. Right: Using a Hydra-Lizer Equipped Ladder on Sloping Roof

conceived by Mr. Bete in 1945. Early samples were sent to the Navy and following its report certain refinements were made so that the nozzles can produce practically any desired spray pattern, from 180 deg. unbrella sprays, to narrow, long-reaching sprays, full cone sprays with no "cones of water," etc.

Rockwood Advances Heath

Ray. B. Heath, General Sales Manager of Rockwood Sprinkler Company, was elected a Vice President of the Company at a meeting of the Board of Directors, on Friday, October 21, 1949.

Ray B. Heath

Mr. Heath, a graduate of Worcester Polytechnic Institute, has been with Rockwood since 1920. He has represented the Company in Atlanta, Ga.; New Orleans, La.; Cleveland, Ohio; Milwaukee, Wis.; and in 1935 was made Western Manager with headquarters in Chicago, Ill.

He returned to Worcester in 1943 as General Sales Manager with headquarters in Worcester.

Mr. Heath, as President of the Worcester Sales Executive Club, presided at the Sales Clinic, held in the Little Theatre of the Auditorium, October 25, and at the evening dinner meeting at the Sheraton Hotel.

ADT's Watchman's Handbook Revised

A new and revised edition of *"The Watchman's Handbook"* has been issued by the American District Telegraph Company. It contains helpful information and suggestions designed to assist watchmen, guards, superintendents and others in the effective safeguarding of premises entrusted to their care. Its contents will appeal, also, to fire officers.

More than 45,000 copies of the first edition were distributed and the new edition has been published to meet the continuing demand for the publication.

The handbook is pocket size, with serviceable cover and is written in non-technical language. The subjects covered include routine and safety measures and practices, with suggestions for appropriate action in emergenices. Simple charts and diagrams give instructions in the proper care of safety devices, such as portable fire extinguishers. Blank pages are provided for recording pertinent memoranda.

The American District Company will send copies, without charge, to any fire department, or organization employing watchman or guards. Address American District Telegraph Company, 155 Sixth Ave., New York 13, N. Y.

Gilman Joins Akron Brass

The Akron Brass Manufacturing Co., Inc., of Wooster, Ohio, has announced the appointment of Edward Gilman, Jr., to the newly created post of Vice-President and Director of Research and Development. Mr. Gilman recently resigned from the Bar-Way Company, of Stamford, Conn.

Edward Gilman, Jr.

He is well known for his design work on the standardization of couplings for fire trucks. Mr. Gilman worked with the Navy Department in the development of high pressure couplings.

Ward-La France Opens New Office

The establishment of a New York Office of Ward La France International, Inc., has just been announced by the company. The office is managed by M. L. Fitzpatrick, and is located at: 52 Broadway, New York 4, New York.

New Kidde Mobile Unit

A new, compact carbon dioxide cylinder and hose reel unit that can be easily installed on 1-ton truck bodies for mobile fire protection of airports, oil fields, dock yards, and for industrial and municipal fire departments is announced by Walter Kidde & Company, Inc.,

The accompanying illustration shows the unit installed behind the cab of a 1-ton jeep. The assembly comprises 6 cylinders each containing 75 lbs. of CO^2, piping manifold, hose reel and multijet discharge nozzle.

The cylinders are arranged to discharge in two groups of three through h.p. flexible hose and nozzle. Any reasonable length of hose can be carried on the reel, the manufacturers state.

New Elkhart Cellar Nozzle

The Elkhart Brass and Manufacturing Company, Elkhart, Ind., has introduced a new fog-type cellar nozzle which incorporates a number of distinctive features. It is a 1½-in. nozzle and is equipped with shut-off. It is light in weight and mobile in operation.

Elkhart Cellar Nozzle

The new nozzle has a capacity of 80 GPM at 100 pounds nozzle pressure. In operation it throws a full pattern of fine spray over a wide area.

The new Elkhart cellar nozzle had a practical demonstration, at the last Pennsylvania Fire School, in Lewistown.

Mack Sets Up New Territorial Sales Unit

Creation of a new Mack Truck Company territorial sales unit, to be known as the Southwestern Division and with headquarters at Dallas, is announced by A. C. Fetzer, vice president. Included

(*Continued on page* 888)

Designed for Use with Any One-Ton Truck Body, the New Kidde Carbon Dioxide Cylinder and Hose Reel Unit Provides Compact, Mobile Fire Fighting Power for Airports, Oil Fields, Dockyards, Public Utility Stations, Industrial and Municipal Fire Departments. This Jeep Truck Also Has Portable Carbon Dioxide and Water Extinguishers for Supplementary First Aid Fire Fighting.

Short Cuts and Gadgets

THE "SKYHOOK HOSEHOLDER"

Just to prove that there is no limit to the introduction of ingenious devices that go to improve the fire fighter's job, take this newest hose-holder called the "Skyhook," for example.

Assistant Chief W. Burwell, Left, Designer of the "Skyhook" Holding His Hose Holder, and Adolph Traeder with the Window-Still Attachment.

How Hoseholder Is Hooked Up
The fly of the aerial ladder is extended three rungs, the "Skyhook" connected to the desired rung, and as the ladder is extended, the hose line is carried up with it. Chain is used to lock hoseholder in position.

It was designed by firemen, for the fire service, primarily to carry the dry hose up automatically with the modern aerial ladder, as it is elevated, speeding up the task of getting hose to upper windows and roof tops. Its designers claim for it that the device (1) eliminates the exhausting task of several men 'manhandling' hose up a long aerial ladder; (2) it can be easily and safely directed in position by one man (3) it enables a man to leave his hose "station" to perform other duties.

The skyhook is made of steel, heavily chromed and can be had for sizes of hose from 1½ in. to 3 in. It weighs 10 lbs. Its use affords horizontal as well as vertical stream direction. It locks up and down in five positions.

Further advantages claimed for this hoseholder are that it eliminates the use of hose straps; makes it unnecessary for the operator (nozzle man) to put his arms through the rungs of the ladder. The "Skyhook" can be operated two rungs below the holder; the nozzle man can keep his head below the window sill with greater protection against heat, smoke or flame, and it does not have the tendency to throw the ladder away from the building. The "Skyhook" can be used with a short ladder as an improvised cellar pipe in basement attack or fastened to window sills or fire walls.

The "Skyhook" was designed by Asst. Chief William H. Burwell of the Huntington Park, Calif. Fire Department, and it is understood the device is being placed on the market for sale.

* * *

"Skyhook" Hoseholders Operating on a Single Aerial Ladder
Upper stream: 1-inch tip on 2½-inch hose, 60 PSI pressure; lower stream, 1-inch tip on 2½-inch line operating at 72 PSI pressure.

HOW MANY LENGTHS?

Our roving reporter spotted an idea used by the Ottawa, Ont., Fire Department that is a worthy "shortcut." Noticing numerals chalked on the rear folds of hose packed in the hose bodies of pumpers, he inquired just what the figures were for. He was told they indicated the number of lengths of hose in that particular hose section, thereby giving hosemen a quick indication of the actual number of lengths available.

As the first length is flaked in the number "1" is chalked on the outer fold. The next length gets a "2" on the fold, and so on, until the entire hose body is filled. Thus it is easy to tell immediately whether there are 10, 15 or 20 lengths in the stowage. The chalk marks show up better on the darker hose, used predominately in Ottawa, but the idea can be worked just as well on white hose, using dark crayon, which is easily sponged off as desired.

* * *

The Old Timer Says—

"The way some firemen (?) overhaul, you'd think they held a paid-up card in the house wreckers union. Good overhauling, like good fire fighting, consists in treating the property at risk like it was your own."

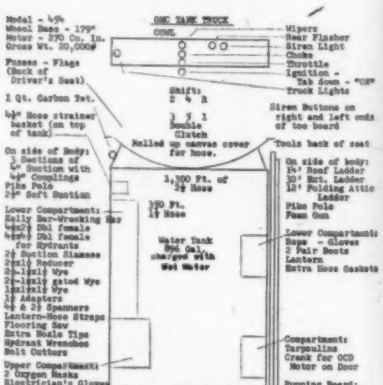
* * *

A VISUAL INVENTORY OF TOOLS AND EQUIPMENT

One of the fire fighter's problems, particularly of the volunteer, is to quickly locate the tools and equipment on a piece of fire apparatus when they're needed. Men are of course trained to know where each item is carried on the truck, and how to find it. But some times men forget, and new men join the unit and for these and other reasons it is necessary to continually refresh members on "what's what and where it's kept."

There are many methods of listing, charting and inventorying equipment and appliances on fire apparatus. Of these, the most useful are the visual diagrams, whereby each item of equipment is listed in relation to others in its position on the apparatus.

Such an inventory can be given each member, can be carried on the apparatus and, enlarged, can be used in training and lecture programs.



Herewith we reproduce one of the diagrammatic inventories used by the Oregon Volunteer Fire Department, Ernest Culb, Chief, of Oregon, Wis. contributed by Norton T. Ames. Each piece of apparatus of this progressive volunteer department is diagrammed in similar fashion. The unit shown is the Tank Truck, which it will be noticed carries, in addition to considerable equipment, wet water in its large booster tank.

The WATCH DESK

Overhauling the firemanic news of the day

by ROI B. WOOLLEY

Barn Burns as Bull Bulldozes Braves!

Farmer William A. Mazarinko of North Andover, Mass., isn't speaking after what happened t'other day. Fire broke out in the Mazarinko barn about dawn and Mazarinko put through a call to the North Andover Fire Department, which rushed a crew and apparatus out to the farm—or almost to the farm, to be exact.

Farmer Mazarinko's big brown bull lived up to his instincts. He saw red—and he acted accordingly. Red engines or no, he planted himself in a narrow roadway leading to the burning barn and challenged the Brothers to come on. They didn't.

Doubling as picadors, the fire fighters armed themselves with pitch forks, forcible entry tools and whathaveyou and attacked, driving the bull back into a field. Before they could get aboard their red chariots, the bull busted loose and returned to the fray. Meantime, the fire was getting worse.

Firemen finally managed to pen the King of the cow yard in a nearby pasture and turned their attention to fire fighting. By this time, however, the big wooden barn was beyond saving. Loss was approximately $12,000.

Reports hath it the "bull session" was continued back in the fire house! (Thanks IRVING JOHNSON)

* * *

Engine 54 in "Hot Water?"

On Sunday, September 25, 1949, Engine 54, New York Fire Department, whose quarters are on West 47th Street, Manhattan, responded to an alarm of fire, which proved to be in an automobile located on 44th Street in front of "Shubert's Alley," the narrow passageway bordering on the Shubert's Theatre.

The fire was of sufficient extent to require the use of a hose stream and members of Engine 54 stretched in and called for water.

When the water came and the fireman at the nozzle started to give the burning car a "dash," he suddenly yelled out to Fire Lieutenant McNeedy in charge of the company: "Hey, Lieutenant, there's hot water coming outa this nozzle!" And no foolin'—there was!

Before the fire was extinguished—so goes the report of those who observed the phenomenon of fire fighters putting out a blaze with a hose charged with hot water—the control nozzle on the line got so hot firemen thought they would have to drop it!

Investigating the source of the trouble, firemen believe that it stemmed in some way from the hot water mains of the New York Steam Company which honeycomb most of Manhattan's midtown streets.

(THANKS BILL HERRIES)

* * *

Valley Park Vamps Have "Dial" Trouble!

The vamps of Valley Park, Mo., have been in a bit of a dither; they've had frayed nerves and so have the folks of that community!

The whole trouble came about when the telephone company installed a new automatic dialing system in that community. Under a long-standing procedure, the ringing of the Fire Department's telephone set off a siren atop the Valley Park City Hall. Whereupon the vol's would stop whatever they were doing and head for the firehouse.

Previously, the Valley Park operator always checked back to make sure a real emergency was being reported before plugging in a Fire Department call. But after the changeover was made, anyone dialing the department's new number touched off the screaming siren.

The dial system went into effect at midnight on a Tuesday. Ten minutes later the first false alarm came in. Since then, before the vamps and city fathers did something about it, there were four more "false" alarms.

THANKS W. A. MCDONNELL

* * *

"Rare Jewel of Great Price"

The month's orchids to Walter Carney, bellhop extraordinary of the Notel Hotel, Nashville, Tenn.

Police officials searched during September, for the occupant of a room on the 10th floor of the hotel, who had registered in the name of "R. C. Brien." They wanted him for questioning in connection with the fire in his room, a fire which they suspected might have been due to smoking in bed (there's a severe law against such practices in the state).

Bellhop Carney pulled the occupant from the burning room shortly before 8:00 A.M. on September 18. According to Carney, he saw smoke pouring from the window of the room and after he had sounded the alarm that brought three engine companies and a ladder company under Assistant Chief G. A. Finley to the scene, he broke in and dragged out the guest.

Firemen fought the blaze from inside and outside, atop their longest ladder before controlling it. Meantime, hotel employees and police sought the occupant, who apparently had departed for "points west."

Nothing new about hotel room fires caused by smoking in bed, but it *is* refreshing to find a hotel employee who believes in calling the firemen first, and then fighting the fire. Such a one is, in the words of Contributor R. H. DAVIDSON, "a rare jewel of great price."

* * *

Hot Off the Tape

Three unidentified men attempted unsuccessfully to burn down a Clarion County coal tipple south of Rimersburg, Pa., Oct. 9th. They broke several windows, severed telephone lines, drenched building with kerosene, then poured a trail of gasoline from an embankment 50 ft. away from the tipple, ignited the gasoline and fled. A night watchman arrived in time to extinguish the fire. The sheriff is investigating. . . . Fourteen sticks of dynamite, packed into a rock seam in an excavation, corner 99th St. and Madison Ave., Manhattan, exploded, throwing neighborhood into a panic, shattering windows and injuring about 20 persons. The contractor's building permit was revoked "after a Fire Department investigation." . . . A boy heating a can of beans over a camp fire near Renfrew, Ont., Canada, was held responsible for the spread of fire through 30 acres of grass and brush. Firemen, who rushed to the scene, were almost surrounded by the flames and had to retreat to safer ground. . . . The fire that raged through the Belmont Hotel, in Ottawa, Ont., Canada, and burned two men to death late in September was caused by a carelessly discarded cigar or cigarette butt tossed into a second-floor cupboard. "Rubbish placed in an unsuitable container" said the coroner's jury. Not greatly unlike what happened in the Noronic disaster, mebbe? . . . Voters in the Town of Stratford, Conn., ballotted October 3 on the Question "Shall the Town of Stratford adopt a 56 hour work week for firemen." The yeas had it 4438 to the nays 1413. (Tom Magner). . . . Ralph Hayden, 9 was trapped for an hour and a half atop a railroad trestle. Firemen used an aerial ladder to remove him unhurt. Lad said he was hunting for pigeons! . . . Chicago Firemen directed by District Chief Arthur McGarry broke open a door to an empty apartment to find two groggy cocker spaniels about dead from gas asphyxiation. The Brothers rushed the canines outside and 'rescuscitated em' then investigated the cause. It developed that the pooches had tried to get their food bowl on top of the range and in jumping had opened the burner valve. . . .

* * *

"FINE!" Said the Judge

Cincinnati's new anti-smoking ordinance has gone into effect with a bang! First person convicted under the ruling which is designed to prevent smoking in bed, in hotels and rooming houses, was James Brown, 33, who was tagged $50 and costs by Municipal Judge Clarence Denning. He was arrested on charges of owners of a rooming house who claimed he was smoking in bed and set fire to a mattress and bedding. Active in getting the conviction was Marshal Joseph Devine, head of the Cincinnati Fire Department's Fire Prevention Bureau.

Judge Denning, entering into the spirit of the thing, later clapped a $50 plaster on Eustance D. Terry, 37, the same offense. "The fire on the S. S. Noronic which took the lives of more than 200 persons" was recalled by the Judge in passing judgment on the culprit. "The chances are that someone did just what you did" the Judge sharply told Terry after he had pleaded guilty.

Marshal Dan Vogel reported that tennants of the rooming house were roused from their beds early in the morning when fire broke out in Terry's mattress. Firemen said he at first refused to admit them, and attempted to fight the blaze himself. Damage was reported at $35.

Business Men to Aid in Traffic Control

The City Council of Forest City, Iowa, concerned with the traffic problem resulting from fire calls, particularly the practice of children who follow the fire trucks on bicycles and jam the area at a fire, has weighed the possibility of deputizing business men to police the main intersections and keep cars from entering a street about to be used by a fire truck in answering a call.

FALSE ALARMS

The Chinaman carefully scattered boiled rice on the grave as an American looked curiously on. "What time do you expect your friend to come up to eat the rice?" the American asked.

"Same time friend come up to smell flowers."

Abie (moaning): "Oiy, Gevalt, I'm dying. Send for a priest."

Son: "But, papa, for you a rabbi should come."

Abie: "Do as I'm telling you. Do you vant that I should be giving our goot rabbi small-pox?"

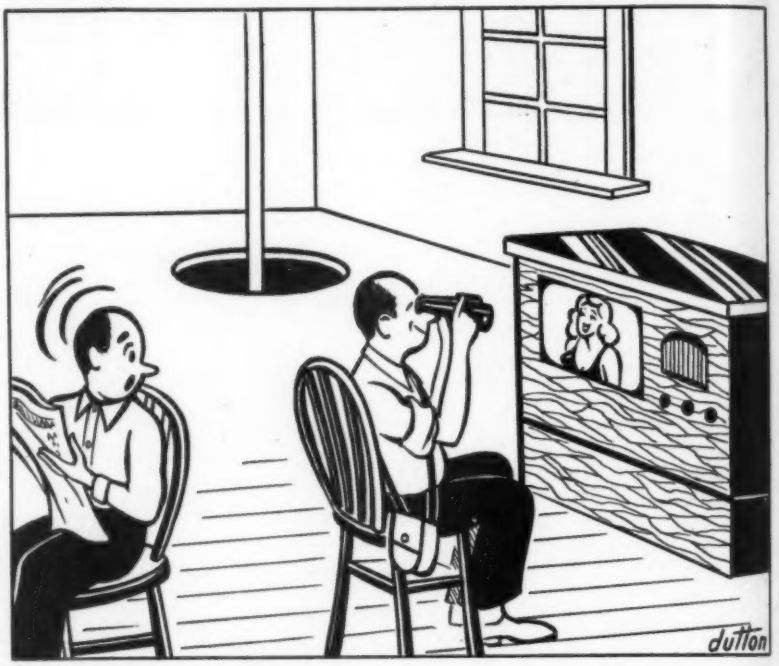
Proof

A man with a nose as red as a tail light was arrested for selling whiskey without a license. He came up before the jury, and a clever lawyer was defending him. He put the man on the witness stand.

After a dramatic pause the lawyer said: "Look carefully at this man." Then he paused again for a long time. "Now, ladies and gentlemen of the jury. You've looked carefully at the defendant. Can you sit there in the jury box and believe that if he had a quart of whiskey he would sell it?"

If it's true that no man is a hero to his wife, it s also probably true that no woman is a wife to her own hero.

This is the little active flea.
We cannot tell the he from she.
It's very difficult you see,
But He can tell—and so can SHE!



During the day Mrs. Brown discharged her old maid and hired a new one, who answered the doorbell when Mr. Brown arrived home in the evening. He carried a bunch of roses which he handed to the maid, saying: "Present these to Mrs. Brown, telling her I want to see her at once."

New Maid: "All right, but you better make it snappy, because she expects the old man any minute now."

Guest (phoning down from his hotel room): "Is this the desk clerk?"

Clerk (in bad humor): "Well, what's eating you now?"

Guest: "That's what I'd like to know."

Ken: "I hear you bought a car cheap the other day. How are you getting on with it?"

Earl: "I'm just realizing how hard it is to drive a bargain."

"I would like to marry your daughter."

"Well, sir, you can leave your name and address, and if nothing better turns up, we can notify you."

Specialist

"So your brother is a painter, eh?"
"Yep."
"Paints houses, I presume?"
"Nope, paints men and women."
"Oh, I see, he is an artist."
"Nope, just paints women on one door and men on the other."

A fire chief was at the art museum with his wife. It happened that there was a huge oil painting of a luscious girl, nude except for a few strategically arranged green leaves. The title of the picture was "Spring."

The chief was suddenly roused from his rapturous study of the picture by his wife, who snapped: "Well, what are you waiting for—Autumn?"

"Take Me In, Mister?"

"FOR 24 HOURS WE FOUGHT A RIVER OF FIRE!"

says **CHIEF GILBERT C. MALEK**
of Minot, N. D.

"Already several explosions from two bulk gasoline stations had killed five persons and seriously damaged or fatally destroyed buildings within a 5-block radius. By the time we arrived, flames had surrounded some gasoline tanks and liquid fire was streaming through the congested streets, threatening to ignite everything in its path. Immediately hose lines were laid down to combat the flames. Tanks continued to explode so we plugged the drains on all nearby parapeted roofs and flooded the roofs with water. After 24 hours of all-out effort the fire was extinguished. Of the 8,500 feet of hose used not a section gave way, though some lines took 200 pounds per square inch pressure. Thanks to such equipment and solid teamwork we saved many buildings and an untold number of lives."

Let's swap Fire Fighting Stories like this one!...
What's your favorite? Send it along to us today!

FOR GREATER PROTECTION TO LIFE AND PROPERTY

Hundreds of fire chiefs and thousands of firemen know the dependability of Eureka Fire Hose—dependability that results from these features:

- ★ **The Unique Smooth-Interior Filler Ply for maximum nozzle pressure.**
- ★ **Balanced Weave and Controlled Curing, which eliminate excessive writhing and warping.**
- ★ **Formula "X" for positive protection against mildew.**
- ★ **Bomb-Tested Linings to insure long, dependable life.**

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PENETRANT

. . . means SPEED

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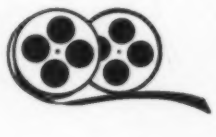
Speed of extinguishment
Speed of apparatus back in service

speed means SAVINGS

Savings in reduced fire losses — Savings in less water damage — Savings in time and punishment of personnel—Savings in equipment wear and tear — Savings through less overhaul and reduced rekindles.
Start saving today with UNOX Penetrant — it's sound economy.

See our 16 mm. sound-color film, "Fire-Fighting with Wetter Water," loaned free by our dealers.



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What's Burning

THE following list includes fires of $10,000 loss and over in the United States and Canada for the month of October, 1949.

Month Ending October 31, 1949

Montreal, Que.—St. John Vocational School, damaged.
Chicago, Ill.—Lake City Laundry Co. damaged. Boiler explosion.
Marion, Ia.—East Star mill destroyed.
Wolf Point, Mont. — Rathert-Schreiber Ford garage destroyed.
Seymour, Tex.—The Seymour Cotton Compress plt. destroyed.
Aberdeen, Wash.—Myers farm equip. store, John Wraster barber shop, destroyed.
Durham, Conn.—Brookfield Farm damaged.
Rushville, Ind.—Grain elevator at Falmouth, destroyed.
Hyattsville, Md.—Eggleston's electric appliance, Vincent's barber shop, damaged.
South St. Paul, Minn.—Swift & Co. refrigerator car shed and repair shop, destroyed.
Valier, Mont.—Farmers Union grain elevator destroyed.
Chaumont, N. Y.—Crescent Milling Co. damaged.
Defiance, Ohio—Defiance County Farm Bureau elevator destroyed.
Winlock, Wash.—Eggland Farm bldgs. destroyed.
Pictou, Wash.—Dwelling of Mr. and Mrs. Ezra Henderson damaged and three stores damaged.
Prescott, Wash.—Chino Valley School damaged.
Homedale, Ida.—Golden Rule store, Gem Hotel, destroyed.
Lorain, Ohio—Hy-Grade Food Products Co. plt. destroyed.
Houston, Tex. — Continental Trailways Co. garage and bus destroyed. Bus was being fueled.
Pullman, Wash. — Washington State College student quarters. Cigarette.
Seattle, Wash.—Schooner, Salina Cruz destroyed.
Freeport, Ill.—Garage of Freeport Coach Co. destroyed.
Old Town, Me.—Bradbury block damaged.
Grand Island, Neb.—Part of plt. of Norden Veterinarian Laboratories destroyed.
Beaver Falls, Pa.—Farkas-Elias Market, a food store, destroyed.
Canonsburg, Pa.—McCarthy & Son Bus. Co. garage destroyed.
Philadelphia, Pa. — Kensington Auto Service Center damaged.
Cloverdale, Cal.—Magills Drugstore, Butler's Grocery store, damaged.
Eureka, Cal.—Acme Foundry plt. destroyed.
Santa Rosa, Cal.—Grocery, meat market, hardware store and pharmacy, destroyed.
Ashley, Ill.—Whse. of St. Louis Terminal, occupied by Pan American Candy Co., damaged.
Whiteville, N. C.—Garage and storage bldg. of Blacks Service Station destroyed.
Atlantic City, N. J.—Goodfriends Shoe Shop, Claude Cooper Jewelry Store, Jane Stewart Erwan Shop, Trousseau Shop, Huyler's Restaurant, Bon Marche Shop, damaged.
Coatesville, Pa.—The Lipkin furniture store and six adj. bldgs. at heart of business district, damaged.
Brewster, Wash.—Whse. of Dry Kiln Gamble Lumber Co. destroyed.
Dayton, Wash.—Dayton Hotel, law offices of R. M. Surdevant destroyed.
Lachine, Que.—Lachine super market damaged.
Champaign, Ill.—Crib room of Pioneer Seed Co. plt. destroyed.
Lakewood, N. J.—Utility bldg. serving Laurel-in-the-Pines Hotel destroyed.
Boston, Mass.—Deer Island House of Correction of City of Boston damaged.
Beaver Dam, Wis.—Two story bldg. owned by Knights of Columbus, adj. Elks Club, damaged.
Cobourg, Canada—Donald McKinnon Matting Factory destroyed.
Middletown, Ohio—Whse. of Charles A. Maish Mattress Co. damaged.
Meshoppen, Pa.—Salem Products Co. plt. damaged.
Marysville, Cal.—Union Lumber Co., Ebner House, damaged.
Granville, N. Y.—Bldg., apt., bowling alley, diner and grill destroyed.
Pottsville, Pa.—Breaker of Glacier Coal Co. destroyed.
Simcoe, Ont.—Dance pavillion, restaurant and store at Long Point Beach destroyed.
Brawton, Ala.—Parker Gin Co., Farmers Exchange Co., Brewton Wholesale Grocery and the Ritz Theatre, damaged.
Nicholasville, Ky.—Kentucky River Distillery whse., 18,000 barrels of whiskey, damaged.
Gomer, Ohio—Two barns and granery on farm of Frank Griffiths, destroyed.
Wheeling, W. Va.—Hopkins Motor Co. garage, new and used automobiles, destroyed.

Miami, Fla.—The fourth-floor storage whse. of the Miami Herald, damaged; 2,000 tons of newsprint destroyed.
Chilliwach, B. C.—Stockpiled lumber at Collins-Mackine Mill destroyed. Overheated machinery.
Oakland, Cal.—Business block, Foster & Kleiser, signboard company, damaged.
Morris, Minn.—Girls dormitory at University of Minnesota, damaged.
Albany, Ore.—Hub Cleaning plt. destroyed. Short circuit.
Corry, Pa.—Davis-Fogle Lumber Co. destroyed.
Greensburg, Pa.—Lloyd Motor Co. garage damaged. Defective wiring in automobile.
Pocatello, Ida.—Irving Junior High School destroyed.
Cle Elum, Wash.—M. C. Miller Lumber Co. destroyed.
Cheyenne, Wyo.—Harris Furniture Store damaged.
Williamantic, Conn.—Sadd apt.-business bldg. damaged.
Macon, Ga.—Bibb Paper Co. destroyed.
Glendive, Mont.—Glendive cafe, apt. house and garage, destroyed.
Newark, N J.—Kelleher Motor Freight Lines terminal damaged.
Lockport, N. Y.—Two barns on farm of Michael Pacilli destroyed.
Provo, Utah—Six bldgs., machinery, general offices, lumber sheds of Anderson Lumber Co. destroyed.
Tracadie, N. B.—Capital Theatre, Tracie Mercantile Co. store, whse. and two barns owned by John Coughlin, destroyed.
Marysville, Cal.—Whse. and offices of the Poultry Producers of Central California, destroyed.
Atlanta, Ga.—Furniture store owned by Van C. Sewell destroyed.
Lithia Springs, Ga.—First Baptist Church destroyed.
Murphy, Mich.—Aurora Co-Operative Elevator Co. destroyed.
Buffalo, N. Y.—Darling & Co., rendering plt., damaged. Short circuit in wire.
Corona, N. Y.—Cabinet Mfg. plt. destroyed.
Rochester, N. Y.—Twelve-car garage damaged.
Warren, Pa.—Bradford-Penn Oil Co. damaged.
Brewton, Ala.—Cotton gin and three other bldgs. destroyed.
San Francisco, Calif.—Golden Pheasant restaurant damaged.
Salem, Ore.—Hay barn at Oregon State Prison destroyed.
Philadelphia, Pa.—Paint and linoleum store destroyed. R & S Rug Co. damaged; also Sellers Co. whse. damaged.
Spokane, Wash.—Montvale Hotel apts. damaged; Cooley's Amusement Devices damaged; Kilmer & Sons Hardware damaged.
Santa Rosa, Cal.—Ryerson Camera Shop damaged. Faulty electric wiring.
Atlanta, Ga.—Hudson and Vittur Transfer Co. whse. destroyed.
Sedalia, Mo.—Otterville Consolidated School destroyed.
Senath, Mo.—Hotel bldg. damaged; also whse. and office of Missouri Utilities and National Gas Co. damaged.
Burlington, N. C.—Front Street Methodist Church destroyed.
Emsdale, Canada—Emsdale Trading Store and Fine Metals Mfg. Co. plt. destroyed.
Macon, Ga.—Bibb Paper Co. whse. damaged.
Harbor Springs, Mich.—Ottawa Lumber Co. plt. destroyed.
Kalispell, Mont.—Compton Grocery destroyed. Short circuit.
Rutherford, N. J.—Business bldg., Station Square, owned by Mrs. James Ely, damaged.
Leechburg, Pa.—Mining machinery at Hicks Coal Co., Gilpin mine, destroyed.
Smiths Falls, Ont.—Rideau Specialty Co., mfrs. of celluloid leg bands for poultry, destroyed.
Dardanelle, Ark.—Mixing room of Arkansas Valley Feed Mill damaged.
Lafayette, Ind.—Studios of Radio Station WASK, Wallace Bldg., damaged.
Independence, Kans.—Elk Valley alfalfa mill, at the Independence municipal airport, destroyed
Huntsville, Ala.—The N. C. & St. L. Railroad freight depot destroyed.
Ratcliff, Ark.—The Ratcliff High School, main bldg., destroyed.
Warren, Pa.—Plt. of Nu-Guard Chemicals, Inc., damaged. Oil tank explosion.
Oakland, Cal.—Mixing paint shop, 4127 E. 14th Street, destroyed.
Escanaba, Mich.—Escanaba's high school stadium destroyed.
Morganton, N. C.—Carolina Grill destroyed.
Huntington, Utah—North Emery high school destroyed. Welder's torch.
Marysville, Cal.—Hudson Lumber Mill, off U. S. Highway 99-E, Linda District, destroyed.
San Bernardino, Cal.—Stock whse. of Stockwell & Binney Co. destroyed.
Macon, Ga.—Whse. of Bibb Paper Co. destroyed.
Chicago, Ill.—Bldg. occupied by R. Siller, restaurant, C. Robinson, M. Coleman, beauty parlor, damaged.
Duluth, Minn.—Natl. Iron Corp. plt. destroyed.
Knoxville, Tenn.—Main bldg. of Broadway Mfg. Co. damaged.

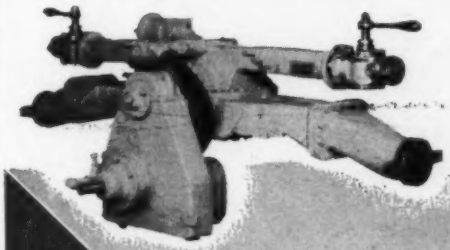
WATEROUS presents...
"FAMOUS FIGHTING HEARTS"

GLENN CUNNINGHAM

With his legs terribly burned in a school fire when eight, Glenn was never expected to walk again. But with the courage and heart of a true champion, he forced himself to walk and then . . . to run.

And how he ran. This famous Kansas miler won eight national championships, made the Olympics . . . ran more mile events in less than 4:10 than any miler in history. Truly, Glenn Cunningham has one of the greatest of fighting hearts.

WATEROUS fire pumps, too, have won remarkable records for outstanding performance and stamina. They are ruggedly constructed and give years of dependable service. WATEROUS pumps are standard equipment on leading makes of fire apparatus.



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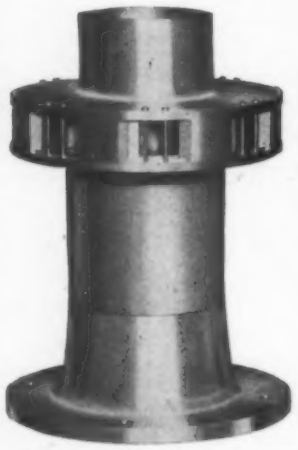
FIRE PUMPS
WATEROUS COMPANY · ST. PAUL, MINN.

A SCREAMING NEW WARNING SIGNAL

NEW B & M MODEL 10 (10" Rotor) GENERAL ALARM SIREN

"IT PIERCES THE AIR"



The most effective siren of its kind
SIREN PROPER: ROTOR—10" dia. 15" high WEATHER SHIELD: 15" dia. 30" high.

Every community—large and small—can use this new B & M warning signal effectively. The peculiarly penetrating qualities of the B & M TWO-TONE piercing notes arouse people instantly—move them to protective action—everywhere—against fires and other impending destructive hazards. Like all B & M Sirens, "IT PIERCES THE AIR"—is heard far and above the combative interference of other noises.

This new B & M Siren is quality built throughout: Has long wearing construction, is unfailing in time of need, and instantaneously develops the needed warning signal . . . Not a split second lost. . . . That's why this B & M General Alarm type is so broadly in demand for general alarm use, in municipalities severally and specifically for: Small communities employing volunteer fire departments; for harbors, airports, railroad yards, mines, forestry protection and scores of kindred safety and accident prevention applications.

BRIEF SPECIFICATIONS:

MOTOR: Specially designed, high-speed, series wound—over 2 HP capacity. . . . ROTOR: Dynamically balanced, heat treated. . . . ROTOR SPEED: Test rated for safety at 18,000 RPM. Average operating speed—9,000 RPM. . . . BEARINGS: New Departure ball bearings. . . . AIR VEINS: Patented B & M develops high intensity piercing warning signals. MOUNTING: Designed for quick installation on any flat surface. . . . WEATHER HOOD: Baked on special black finish. Stands up to all tough weather conditions. . . . SOUND DISTRIBUTING CONE: B & M special inverted design evenly projects warning at maximum strength for maximum distance.

A 35-YEAR REPUTATION

Records show B & M to be the oldest and best known siren manufacturer. If you have a potential warning signal problem of any type, WRITE.

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1. Automotive: Electric—Motor driven.
2. Friction: Driven from fan rim, crank shaft extension, flywheel or tire (motorcycle).
3. General Alarm: Electric—4 sizes: 6"—10"—15"—20".

WRITE for full information about these fine 35-year reputation sirens. (P.S.: B & M is the oldest siren manufacturer).

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Sirens for Every Warning and Signal Use
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The ROUND TABLE

For Practical Discussion of Current Fire Department and Fire Management Problems

EXIT FACILITIES FOR FIRE RESISTANT BUILDINGS

THE discussion in this Round Table is a continuation of that which appeared in the October issue on exit facilities for fire resistant buildings.

The generous response from our readers made it necessary to carry the discussion over to this issue.

Readers are invited to send in their comments on this subject or on next month's subject which is described in a box on a subsequent page. Address communications to Round Table Editor, FIRE ENGINEERING, 24 West 40th Street, New York 18, N. Y.

Discussion of the Topic

F. Cooksey, District Chief, Chief Inspector, Ottawa Fire Prevention Bureau, Ottawa, Ont.: I do not consider the one exit to be adequate. The fire incident could possibly involve the one exit creating a situation which leads to panic and chaos.

The City of Ottawa's By-Laws call for two exits in buildings exceeding 3,000 square feet floor space or which are occupied by more than 100 persons.

I do not remember any specific fire in the type of building under discussion, but it is obvious that with the arrival of the fire brigade, entry to the fire location would have to be made against the tide of persons leaving the exit door. Elaboration of details in this situation is unnecessary to fire fighters, but it spells "Delay."

Hoyt M. Ayers, Chief, Birmingham, Ala.: In multiple story, fire resistive buildings with medium or high hazard occupancy; with large numbers of people—such as factories, department stores, schools, auditoriums, etc.; or with sleeping occupants—such as hospitals, hotels, dormitories, etc.; more than one stairway is a requisite.

In multiple story fire resistive buildings with light hazard occupancy, such as office buildings; with each floor cut off completely from every other floor; with stairway completely enclosed from bottom to top; with stairway within 100 feet (150 feet in completely sprinkled buildings) from any part of building—more than one stairway should be installed. The extra stairway would be desirable. But when weighed with the extra expense, the valuable floor space and other considerations, the extra safety may not be justified. Sometimes compromises are necessary.

It would be desirable to have two or more stairways in each two-story dwelling. However, if such laws were enacted now it would considerably curtail building such homes. If forcing such buildings to have more than one exit would curtail building office buildings, then the small amount of extra safety would not be justified. The good life safety record of such buildings has already proven the wisdom of this attitude.

In my personal experience, I have never been severly handicapped in fighting fires in office buildings of the type described above because of just one stairway. However, I realize the probability. I am looking forward to just such a condition with apprehension.

J. A. Mayhew, Chief Engineer, Washington, D. C.: This would depend upon any limitation as to height of building. In the District of Columbia, one means of egress is permitted in certain types of buildings not over three stories or thirty feet in height and there are certain restrictions placed on three-story buildings such as in residential buildings. The number of apartments and occupants are limited and in commercial buildings the floor space and number of employes on each floor are limited.

We have not experienced any great difficulty in combating fire in the type of buildings referred to in Question 1, but in buildings of greater height than three stories, in my opinion, one means of egress would hinder both fire department and evacuation operations.

Frank H. Burns, Chief, Grand Rapids, Mich.: I believe any building with only one means of exit is a definite life hazard to occupants regardless of how well constructed the exit might be.

There is also a decided disadvantage to the department in operating on a

HERE IS THE QUESTION

Some of the latest municipal building codes provide for but one means of egress in buildings of fire resistant construction, if stairway is completely enclosed and goes to the roof.

1. **Do you consider this to be adequate exit facilities in case of fire?**
2. **In your experience, have you found fire department operations in buildings of this type of construction difficult?**

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The 2½ Gallon
Silver-lite 500
Soda-Acid Extinguisher

New Fyr-Fyter STAINLESS STEEL Models Offer Big Savings . . . yet are 4 ways finer . . .

You Get More But Pay No More When You Specify Fyr-Fyter *Stainless Steel* Fire Extinguishers.

Known as the *Silver-lite 500* series, these Fyr-Fyter extinguishers are now being manufactured at a considerable savings due to new, modern production methods. The savings are being passed on to users of Soda-Acid and Foam extinguishers.

Fyr-Fyter will now sell you Soda-Acid or Foam fire extinguishers at as low a price as any manufacturer.

Furthermore, you get more for your money. These new models are stronger, lighter and offer more resistance to damage than conventional makes. And they add beauty to your premises without extra cost to you. Their long-lasting luster is easy on the eyes just as the price is easy on the budget.

Specify Fyr-Fyter Stainless Steel . . . And Save. Write for full details and prices.

The Fyr-Fyter Co., 2510 Crane St., Dayton, Ohio

5 POUNDS LIGHTER
Use of stainless steel has produced important weight savings, making the unit easier to lift.

EXTRA STRENGTH
The extinguishers carry the Underwriters' 500 lb. test label instead of minimum 350 lb. label.

DENT RESISTANCE
The Fyr-Fyter stainless steel extinguishers are more resistant to knocks, bumps, and impacts.

LASTING BEAUTY
The polished stainless steel finish retains its lasting luster indefinitely. No tarnishing.

Approved by the Underwriters' and Factory Mutual Laboratories

Fyr-Fyter

Stainless Steel Extinguishers

The Fyr-Fyter Company, 2510 Crane St., Dayton, Ohio

Please send me full details and prices on your new Stainless Steel foam and soda-acid extinguishers.

Name_____

Title_____

Street_____

City_____ Zone___ State_____

fire in such a building in gaining advantageous entry.

James L. Cain, Chief, Bureau of Fire Prevention, Denver, Col.: Section 3302 of our Municipal Building Code revised and adopted July 27, 1949, provides the following relative to exits required in buildings.

"*Number of Exits.* Group D Buildings and Divisions 1 and 2 of H occupancies having an occupant load of more than ten (10) shall have not less than two (2) exits.

"Other occupancies having an occupant load of more than fifty (50) shall have not less than two (2) exits.

"Buildings or portion thereof having an occupant load of 500 to 999 shall have not less than (3) three exits.

"Buildings or portion thereof having an occupant load of 1,000 or more shall have not less than four (4) exits.

"If two or more exits are required, they shall be arranged a reasonable distance apart so that if one becomes blocked the other will be available."

Edward E. Wischer, Chief, Milwaukee, Wis.: In our Milwaukee building code and in the State of Wisconsin building code, two stairways are required in buildings of two or more stories in height which are used for other than dwelling purposes.

The type of construction, floor area, height of building and occupancy must always be considered in computing the number of exits necessary to provide safe exits.

I would not consider less than two exits adequate from any building regardless of the type of construction.

My experience in fire fighting operations has been that in any buiding used for other than dwellings there were two or more stairways; however, if there had been only one stairway it would have made the saving of life and fire fighting operations more difficut. I have found this condition in some of our dwelling fires where there was only one exit from the upper floor and this exit was involved in fire.

T. F. Williamson, City Fire Inspector, Ottumwa, Iowa: I don't approve of fire escapes leading to roofs for there is no fireproof building. The building may be fireproof but there are plenty of fire hazards inside buildings. We had a problem in our city of this type and took it up with our State Fire Marshal. He did not approve of it.

I think the best fire escape is a Class B on outside of building with landing at each floor. You can clear your building directly oustide.

H. E. Whitcomb, Chief, Pueblo, Colo.: Our building code here still calls for two exits from any type building. So far we have no buildings with stairways completely enclosed and running to roof.

I would be against any building code that does not provide at least two means of exit from any building, and I would think fighting fires in buildings with only one exit could be very difficult and dangerous to life and property.

Olander Lind, Chief, Kansas City, Kansas: I am definitely opposed to any such construction. If our city was to permit such construction in our city code it would still be invalid, inasmuch as our State Fire Marshal's regulations require at least two; in fact, the General Statutes of Kansas 31-101 goes so far as to state that the fire chief of the area involved shall determine the number of such means of egress, his recommendations, of course, being subject to the approval of the State Fire Marshal.

As to whether this type of construction makes fire fighting difficult in this type of building, all one has to do is to read Chief Anthony J. Mullaney's article in the September issue of the "Building Standards Monthly." Here you will find an article on new windowless building construction and the same arguments go in this particular instance. It is only natural that the more means of ingress a fire department has, the more effectively they may cover the entire structure. After all, a building may be ever so fire resistant, but our usual headaches come from the combustible materials stored in them. If you have but one avenue of attack on that fire you are naturally constricting the action of the fire department to where they cannot do their best.

Arthur P. Spottswood, Chief, Fire Prevention Bureau, Minneapolis, Minn.: I realize there are some requirements of building codes whereby one means of egress is sufficient, but in answering your question, it is my opinion that in buildings which are used by the public in one form or another there should be at least two means of egress, separated by at least fifty per cent of the longest dimensions of the building in order to provide a better chance for the occupants to leave the building in case of a fire emergency.

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Circumstances may arise during a fire whereby this one stairway, whether it is completely enclosed or not, might become filled with smoke in which case persons would have difficulty in leaving the building.

Our experience has been that in many instances where fire stairs are provided for exit facilities with fire doors, the doors are propped open, especially during the heat of the summer, in which case a fire condition could very easily block off this one stairway. In operating at a fire in a building with one stairway for egress purposes, if it necessitates the laying of lines up the stairways at the same time the people are trying to use the stairway for exit purposes, it surely would interfere with the proper operation of the fire department.

G. E. Hare, Chief, Jacksonville, Fla.: Our building code requires two exits where a building is two or more stories high, and also an outside fire escape. Sprinkler systems are also required in certain areas. We have never experienced any difficulty at any time in clearing any building.

Charles M. Tucker, Assistant Fire Chief, Boise, Ida.: I do not consider one means of egress from any building adequate for fire fighting purposes. Stairways opening on roof are not good for getting occupants out of buildings.

Any building which has any flammable material is not fireproof; very few buildings have fireproof roofs.

I do not like windowless warehouses above the ground floors as they are too hard to get fire streams into.

J. E. Brennan, Chief, Cumberland, Md.: I do not consider this to be adequate exit facilities in case of fire. I recommend at least two enclosed stairways in every building or one enclosed stairway and fire escapes on exterior of building. I make this recommendation because where there is only one means of egress, the passageway to same could be blocked in case of fire. Therefore, where there are two or more means of escape, the occupants have better odds of reaching safety.

Fire department operations in buildings of this type are difficult due to the fact that firemen are often hampered in their operations by occupants on stairways when they are trying to advance hose lines and such.

William T. Shaw, Chief, New Britain, Conn.: Our local code is written around two or more exits depending on size of construction. With the exception of two family dwellings, all have two or more exits.

J. W. Smyth, Chief, Springfield, Mo.: In my opinion, one means of egress is not adequate. I find this type of building a handicap to fire department operation. More means of egress means more ways of entrance for fire fighting. In abolishing any means of egress you are also taking one entrance from us.

In a fire resistant building, we are assured of the fact that we can move in on the fire, knowing that the biulding will not collapse.

William C. Garvin, Chief, Yonkers N. Y.: I do not consider this to be adequate exit facilities in case of fire. Offhand I don't recall having a fire of any consequence in a building of this type of construction. However, I can imagine a fire in one room and the occupant in another and having to run

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HERE IS THE PROBLEM FOR THE NEXT ISSUE

During recent years have any buildings been erected in your city which are windowless, or practically so (such as air conditioned and artificially lighted department stores, chain stores, factories, etc.)?

If so, do local ordinances require the provision of openings through which the fire department may operate, particularly on upper floors in the event of fire?

If no such openings through walls are provided, are other provisions available to permit effective fire fighting and rescue, such as incombustible fire towers in sufficient number?

What recommendations would you make to (1) prevent loss of life, and (2) to prevent fire getting out of control in such structures?

How have you solved the problem?

through the fire to reach an exit. The fact that the building is of fire resistant construction would be no help in such an instance. The lives of the occupants are more important than the building. It is well to remember that a "building is only as fireproof as its contents," and there is no way, sofar as I know, of fireproofing a human being.

John Krusenklaus, Chief, Louisville, Ky.; Frank L. Veasley, Chief, Cleveland Heights, Ohio; and J. F. Finnegan, Chief, Richmond, Va., reply that they do not believe this to be adequate exit facilities in case of fire and that, from their experiences, fire department operations in buildings of this type of construction are difficult to perform.

World Wide Fire News

By Roi B. Woolley

Mystery Blasts in the News

On September 29-30 last a series of unaccounted-for blasts shook widely separated areas in the United States and Canada. On the 29th the gold-mining city of Timmins in Northern Ont., was shaken shortly after noon by a shock or explosion of undetermined origin. First reports said the blast, which shook houses, might have been caused by an air blast in one of the city's eleven gold mines. Police reported the ground shook in Timmins and nearby Schumacher for 15 seconds but neither they nor fire officials reported any injury to person. There were no fires.

On the 30th, a blast was felt over a triangular area in Northwest Florida and

South Alabama in which are located two important military establishments. Buildings 70 miles apart were jarred by the rumbling explosion "of terrific force." No reason for the blasts, which brought inquiries to fire and police departments were advanced by miltiary officials.

* * *

Bomb Blast Kills 12 in Britain; Sets Fires

Twelve airmen, eleven of them U.S. flyers, and one British observer died when a B-50 bound from Britain to Heligoland on a practice bombing mission plunged into a wheat field near Isleham, England, with three tons of live bombs.

The countryside for twelve miles around was jarred by the blast, which hurled bodies of men and parts of the plane over wide araes of the field. Witnesses said the plane was coming low in a light fog, with its tail section afire before it crashed, and the 500-pound bombs exploded. The pilot narrowiy missed a row of houses.

The flaming gasoline from the wreckage ignited a farmhouse and hay stacks. Firemen and emergency forces from nearby communities were rushed to the scene.

* * *

Sabotage in Finn Timber Fire?

On October 1, Finnish fire fighters won control over a blaze that destroyed vast timber yards at Kemi in northwest Finland. The fire, which broke out the night before, consumed large stocks which had been piled up during the recent wave of Communist-led strikes against the government's wage-pegging policy. The yard is one of Finland's biggest, and losses were reported as high as $4,200,000.

Arson experts were called in to search for evidence of sabotage when it was recalled that Kemi had been the center of the wave of strikes.

Firemen were hindered by gale winds, which scattered burning embers and debris over a wide area, starting secondary fires. One broke out in a hospital which had to be evacuated.

* * *

Who Should You Believe?

After all the to-do about the hazards of the atom bomb, and the protective measures that must be taken in an atomic bombing, now comes Commander Eugene Tatom head of the Navy's aviation ordnance branch, to upset applecarts.

Testifying before the House Armed Services Committee in October, Commander Tatom said it would be safe to stand at one end of the Washington national airport's 6,885-foot north-south runway while an atom bomb exploded at the other. He told the Committee it would require "no more protection than the clothes you now have on."

"Contrary to popular belief" the witness said, "the effect of the atom bomb, while completely devastating in the immediate vicinity of its burst, is rather limited in its area of destruction."

Representative Carl Vinson (D-Ga.) skeptically replied to the Commander's words. He said: "Young man, I want you to come back here tomorrow morning prepared to tell us, if what you say is true, why so many thousands of people were killed when those bombs exploded over Japan during the war."

* * *

Hot Off the News Ticker

A Navy helicopter pilot was blamed for a 600-acre fire on a ranch near Eureka, Calif. State Forest Ranger

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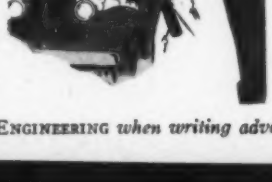

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Leroy Neil said he believed the fire started when an unidentified pilot fired tracer bullets at a coyote. A ranch owner said he saw the helicopter hovering over the area and heard six shots fired. Smoke rose immediately after the plane departed. Thirty fire fighters controlled the blaze after a three-hour struggle. . . . Rare paintings by Rubens and Van Dyck were among those destroyed in a warehouse fire at St. Helier, Isle of Jersey, where the Earl of Jersey stored many of his art treasures. The early morning fire, of unknown origin, caused estimated damage of $280,000. Two similar fires at St. Helier, which also began in the early morning hours, caused Scotland Yard to investigate. . . . Monte Woolley "The Man Who Came to Dinner" and brought endless trouble to his hosts, in the play, was eating dinner at the Williamstown Inn, Williamstown, Mass., when fire broke out in his parked auto. The whiskery actor kept right on eating while employes and firemen put out the blaze. (Thanks, J. K.) . . . The U.S. Naval Tanker Chehalis exploded and sank, at her dockside in Tutuila, Samoa, following a fire on Oct. 7 last. Six lives were lost and a number of the crew were injured. The 2,020-ton ship was loaded with aviation gasoline and oil. . . . Four men were burned by a fire in the hold of the tanker Makaweli at Port Weller, St. Catherines, Ont., in October. They were trapped when an acetylene torch apparently ignited gasoline fumes. All reached safety or were rescued. Difficulty was experienced in removing the injured because of lack of oxygen in the hold following extinguishment of the flash fire. Firemen used a riveting hose to pump air into the hold. . . . Fire of undisclosed origin totally destroyed the Norwegian steamer Policarp October 3, 1949, at its anchorage in Puerto Cabello, Venezuela. The entire ship's crew escaped without injury. Ship was loaded with flour, rubber and motor cars. . . . Twenty-one members of a U. S. Air Force football team parachuted to safety in September from a burning transport while returning from Tokyo to Itazuke Air Force Base. Eleven other crewmen and squad members stuck by the plane, which landed safely. . . . About 150 passengers were injured, 40 seriously, when a crowded carriage on an electric train burst into flames in September, between Osaka and Kyoto, Japan. Passengers with clothes afire jumped out of doors and windows when trains stopped.

Questions and Answers

Opening Rolling Steel Doors

To the Editor:

During my experience in the fire department, I have on many occasions witnessed the futile attempts of truck companies to open up the rolling steel doors usually found in large industrial buildings, on piers, warehouses, etc. What is the correct method of opening these doors?

J. J. F.

Answer: Vertical Doors (Rolling Type): These doors, which are made of interlocking strips of metal, are usually

found on business houses, and are drawn down at the close of business hours. The fastening, which in most instances is on the outside, may be found at the sidewalk. It generally consists of a ring or staple set in the masonry of the sidewalk which lines up with a similar loop or staple, or a hasp on the door. An ordinary padlock secures the ring in the sidewalk and the fastening on the door together.

Lock must be broken by a sharp blow with the back of an axe, or it may be wrenched off with a claw tool, lock breaker or other tool.

When the fastening is broken, the drop should be raised by lifting at the center, and not at an end. This prevents the door from jamming.

When rolling iron doors (vertical) are fastened on the inside, opening them is a little more difficult operation.

The usual method of accomplishing this is to drive the blade of an axe along the sill beneath the door until the fastening is met. At this point the axe blade is driven in with the back of another axe and the fastening broken. The forked end of a claw tool, or spade end of a lock breaker, may be used instead of the axe for breaking the fastening, although the axe will probably have to be used to locate the fastening as well as spring the door sufficiently to make room for the other tool.

If the door is securely locked and does not give in to the above treatment, it may be necessary to chop a hole through it with an axe. The metal in the door is ordinarily of such thickness as to make it possible to cut through in reasonable time.

Quite recently, with the general adoption of the portable oxy-acetylene cutting torch, this unit is used with good effect in providing an opening through the metal rolling door either for entrance or for disengaging the fastening on the inside.

If the fastening is such that it can be cut free with the torch, this may be done once an opening through the door is accomplished.

Branched Layout

To the Editor:

Pumper No. 1 is pumping through 500 feet of 3-inch hose to Pumper No. 2. From Pumper No. 2 two layouts are stretched. One consists of 200 feet of 2½-inch hose branched into two 100-foot lines of 1½-inch hose each equipped with ½-inch tip.

The other layout consists of 300 feet of 2½-inch hose with a 1-inch tip.

The pressure at each nozzle is to be 50 pounds.

Find the pressure at each pump necessary to produce the nozzle pressure indicated. J. F. B.

Answer: The quantity discharged by ½-inch nozzle at 50 pounds pressure is 52.5 gallons per minute (Discharge = $29.7 \times d \times d \times \sqrt{P}$, where d is the nozzle diameter in inches, and P, the pressure in pounds per square inch.) Friction loss in 100 feet of 1½-inch hose carrying 52.5 gallons per minute is 10.2 pounds.

The pressure at the wye, supplying the two parallel 100-foot lines of 1½-

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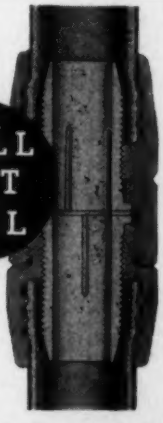

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inch hose, will then be 50+10.2, or 60.2 pounds.

Friction loss in 100 feet of 2½-inch hose carrying 105 gallons per minute is 2.73 pounds.

The friction loss in 200 feet would then be 2×2.73, or 5.46 pounds.

Then the pressure at engine No. 2 would be $5.46 + 60.2$, or 65.6 approximately.

The discharge from the 1-inch nozzle at 50 pounds pressure is 209 gallons per minute.

The pressure at Engine No. 2 necessary to deliver water through 300 feet of 2½-inch hose and give a pressure of 50 pounds on a 1-inch nozzle is 84 pounds.

Note that the pressure required at Pumper No. 2 to supply the branched lines is 62.6 pounds while that pressure necessary to supply the single line is 84 pounds.

Therefore the discharge gate on the line supplying the branched lines will have to be throttled down in order to give 65.6 pounds on this line.

The total flow through the three lines is $105 + 209$, or 314 gallons per minute.

The friction loss per 100 feet of 3-inch hose carrying 314 gallons per minute is 8.97, or 9 pounds approximately. The friction loss in 500 feet of hose will be 5×9, or 45 pounds.

Then the pressure at Pumper No. 1 will be $45 + 10$ pounds (inlet pressure), or 55 pounds.

Frame Tenement Fire

To the Editor:

At 2:00 A.M. on a hot, humid night, you respond on a box alarm to a fire in a three-story frame tenement located in a congested section of your city. On arrival you find fire in possession of the rear stairway and smoke pouring out the cornice of the building.

You are a lieutenant in charge of an aerial ladder truck, first to arrive at the scene.

State clearly, and in full detail, the actions you would take pending the arrival of an engine company.

J. P. D.

Answer: Responding on box alarm in this district, it is assumed you will have three engine companies and two ladder companies.

If the area of the building is large, or if adjoining or adjacent structures constitute an additional severe life and exposure hazard, immediately transmit a second alarm. This area, as indicated in the question, is densely populated. If only one ladder responds on the first alarm, additional ladder equipment will be needed. Even though the fire is such that it can be controlled with a first alarm assignment, transmit call immediately for additional ladder company.

The life hazard will be particularly severe at 2:00 A.M. in the morning. At this time the tenants of the building are asleep. It is a hot humid night, which will make severe smoke conditions. Furthermore, windows will be open, increasing materially the speed with which fire will travel through and involve the structure.

Frame tenements are highly combustible and fire may be expected to travel

with rapidity throughout the building.

Rear stairway is involved, and some of the tenants may be cut off from escape by this stairway being impassable. Cockloft is involved, as indicated by smoke coming from beneath the cornice.

The danger of the fire mushrooming over the entire structure, as well as through each floor, as well as to adjoining buildings, is great.

It is probable that there will be obstructions to raising the ladders at the rear of the buildings, such as clotheslines, fences, and limited space. Thus there will likely be delay in getting the ladders into the rear of the building and getting them in position.

The first concern of the fire department is the safe evacuation of all tenants of the building.

One man should be sent through the building at once to awaken the occupants and direct them to safety. Another man should be sent to the roof to ventilate, by breaking or removing skylight over rear stairway. He is to make sure that ventilation is not blocked off by ceiling, etc., below. Ordinarily two men are sent to the roof for ventilation, but where but one company is available, it is necessary to spread out its personnel.

The remainder of the company should ladder the rear of the building and assist any, who may be trapped in this section of the structure, to the street. Enlist help of bystanders, if necessary, to get ladders to the rear of building through the alley.

Use members of first-due engine company for rescue work (raising ladders, or holding life net) if warranted by urgency of situation.

No mention of exterior fire escapes is made. If there are such at the rear of the building, see that ground flight ladder, or ladders, are immediately lowered.

The purpose of opening up over the rear stairway is to draw smoke and heated gases through this vent, checking the spread of the fire on the various floors. This procedure will delay the time when the structure is entirely involved, and will assist the fire department materially in getting everyone safely to the street.

Obituaries

Ex-Chief George Sinclair Dead

People from all walks of life filled North Broadview United Church, Toronto, Ont., and lined the street outside to pay their final tribute to the late George Sinclair who was Chief of the Toronto Fire Department for 17 years and a fireman for more than half a century. Honorary pallbearers were veteran fire officials who had served under the late Chief since 1930; they were Deputy Chief Albert Steen, District Chiefs William McCallum, Len. Leigh, Sam Wilkinson, John Doyle and Captain William Corbett. Active pallbearers were Jack Anderson, John David Hilton, John Thompson, W. Coulter, W. Bissell anl Dr. J. P. Leighton.

Chief Sinclair is survived by his widow, two sons John and Douglas Sinclair and two daughters, Mrs. W. Bissell and Mrs. W. Druery.

Chief Sinclair was born on a farm in Bradford, Ontario, came to Toronto at

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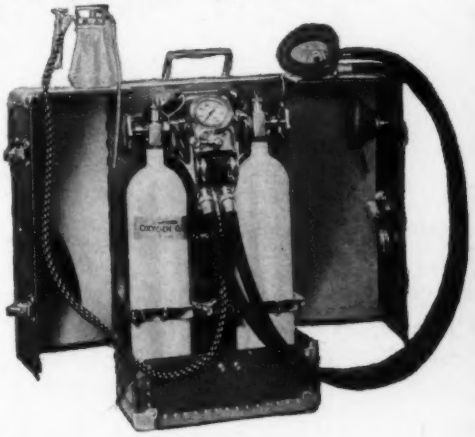

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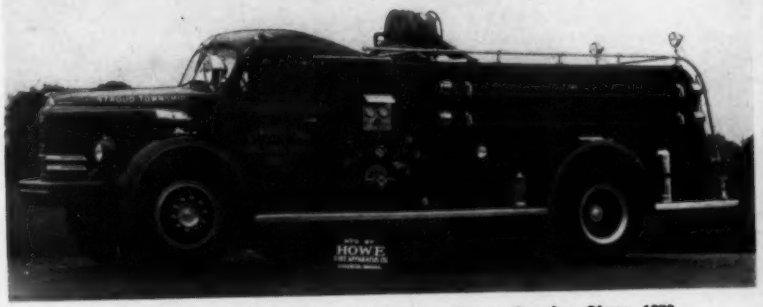

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the age of 13, and clerked in a grocery store. His love for horses interested him that he joined the Toronto Fire Department on April 26, 1895, at Yorkville Ave. Fire Station. At that time Toronto's population was 175,000. He was promoted to lieutenant in 1906; in 1910, to Captain of No. 4 Hose Wagon and in 1914, East District Chief, and Asst. Deputy Chief in 1919; and five months later, to Deputy Chief. In 1930 he was made Chief of the Department and held this rank until he retired in June, 1947.

He completely motorized the department and also made many other improvements. When he had completed 50 years of service, a civic dinner was given in his honor and over 450 persons attended.

JOHN KARL LEE

Chief Constantine Dies

Fire Chief Herbert P. Constantine, 53, for eight years head of the Bangor, Me., Fire Department, died suddenly September 20.

Chief Constantine was a member of the fire department for 34 years, first as a call man, then as permanent member. He advanced through the ranks and was appointed Chief on the retirement of the late Chief Joseph P. McCosker, in Sept. 1941. Under his tenure of office the Bangor Fire Department was brought to a high peak of efficiency.

The chief was a past-president of the Maine Fire Chiefs Association and a director of the New England Division of the International Association of Fire Chiefs. He is survived by his wife; three sons; four grandchildren; five brothers and two sisters.

John J. Nelligan has been appointed Chief to succeed Chief Constantine.

Son of F. S. Brigham Dies

Upon returning to their home at Roanoke, Va., on Sunday evening, October 2, following the I.A.F.C Convention at New Orleans, La., Mr. and Mrs. Francis S. Brigham received the crushing news that their four months old son had died some time between 3:00 and 4:00 A.M. on Sunday morning. He had never been ill for a moment since birth, but an enlarged thymus gland apparently caused his suffocation.

Chief Fred Thompson Passes

Death from a kidney ailment claimed Fire Chief Fred Thompson of the New Liskenard, Volunteer Fire Brigade, New Liskenard, Canada on October 9, 1949. The chief was taken ill after returning from the Dominion Association of Fire Chiefs Convention.

Chief Thompson was widely known among Dominion Chiefs. He was for a long time secretary-treasurer of the Temiskaming Firemen's Association and in 1931 served as its President. Following his retirement, he continued his interest in and activities in the Dominion fire service.

Keller, NFBU Arson Agent, Dead

Ezekiel E. Keller, a Special Agent for the Arson Department of the National Board of Fire Underwriters for the past nineteen years, died September 28, after an illness of three weeks. He was 72 years old.

Mr. Keller, who resided in the Bronx, served with the New York Police Department for thirty years before joining the National Board in 1930.

Persons in the News

Townsend Heads N. Y. State Fire Mobilization Bureau

B. Richter Townsend, of Hartsdale, N. Y., has been named Chief of the Bureau of Fire Mobilization and Control of the New York State Division of Safety, to fill the post left vacant by the retirement of Chief Thomas H. Coates of Rochester because of ill health, it was recently announced by Thomas W. Ryan, Director of the Division.

The new chief has been a member of the Hartsdale Fire Department since 1926. He served as Captain of the Patrol Company in 1936 and was chief from 1941 to 1945. During the war he was Deputy Fire Coordinator of Westchester County and from 1946 to 1948 inclusive he served as president of the Fire Chiefs' Emergency Plan of that County. In 1949 he was appointed coordinator of Westchester County and chairman of the Fire Advisory Board of the County, which directs the County firmen's training program under auspices of the State Division of Safety.

Chief Townsend has been instrumental

Full Speed at the Start ... Earlier at the Fire

You reach the fire quicker with KIM Hotstart installed on your fire trucks. It saves those precious moments wasted by slow starting, sluggish engines.

KIM Hotstart is an electric preheater that is plugged into the electric circuit. It keeps hot water circulating through the engine, keeps engine warm. Full power is available at the touch of the starting button. The Hotstart is disconnected in an instant.

Installing KIM Hotstart is a good economy measure

Eliminates Excessive Engine Wear

Prolongs Life of Batteries

Reduces Fuel Consumption

There is a KIM Hotstart for every diesel or gas engine. Easily installed. For complete information see your nearest International Harvester or Mack Truck or other automotive supplier; or fill in and mail the coupon for descriptive literature.

KIM Hotstart

KIM Hotstart Manufacturing Co.
West 917 Broadway, Spokane 11, Wash.
Please send literature, prices and name of nearest dealer.

Name_____

Address_____

City_____

Zone_____ State_____

in directing Westchester's unusual training programs since 1947, and he recently supervised the State's re-indoctrination courses in White Plains, for its 75 state instructors.

In his new position Chief Townsend will direct both the state's fire training and mutual aid programs.

In announcing the appointment of Chief Townsend, Mr. Ryan paid tribute to the work of Chief Coates.

Maloney New Canton Chief

Laurence C. Maloney has been appointed Chief of the Canton, O., Fire Department to succeed George E. Jacob who retired recently after 39 years of service in the department, 13 years as its chief.

The new chief made top score in a recent civil service examination, taken also by Assistant Chiefs William H. Rosche and Homer J. Jones. The latter has been serving as Acting Chief pending results of the test.

Chief Maloney, who is 52, joined the department in 1920, was named Captain in 1933 and became Assistant Chief Aug. 9, 1944.

Examination for assistant chief will be held November 10, only captains with at least a year's service in that grade being eligible.

Retiring Chief Jacob was honored at a testimonial dinner on November 2 at the Onesto Hotel, Canton. Master of ceremonies at the dinner was James Seccombe, who was mayor of Canton when Jacobs was appointed chief. The occasion was highlighted by complimentary talks given by members of the department and invited guests.

Chief Spring Feted

Retired Fire Chief Arthur W. Spring of Laconia, N. H., was honored by some 150 fire officials and other friends at a testimonial dinner at the Mc-Nulty-Foley Rose Room, Nashua, N. H., on September 28, 1949, sponsored by the New Hampshire Fire Chiefs' Club.

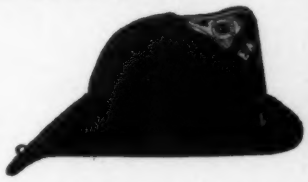
The former head of the Laconia Fire Department and ex-president of the New England Fire Chiefs Association was presented with a handsome pen and pencil set by the state Club, and a sum of money by the New England Association. The latter presentation was made by former Watertown, Mass., Fire Chief John W. O'Hearn.

New Hampshire Club president Fire Chief Chester T. Robinson of Pembroke, opened the meeting. The toastmaster for the evening was Wendell D. Cowell, former Hancock, N. H., Fire Chief.

Among the many speakers who paid tribute to Chief Spring were Clifford Hudson and Theodore Gunn, Board of N. H. Fire Underwriters; Fire Chief Napoleon Guevin and Capt. Jerry Spring of Manchester; Fire Chiefs Harold Howe, Bow; Clarence Green, Concord; District Chief Charles Young, Amherst, N. H. Forestry Department; Audrey Robinson, Fire Marshal. Also present were former Chief Carl Stockwell of Burlington, Vt., Roy Jordon, Tilton, N. H., president N. H. Firemen's Relief Association and fire chiefs from a dozen Massachusetts cities. There were also representatives present from the Massachusetts and Vermont Fire Chiefs Clubs, New England Fire Chiefs Association and the International Association of Fire Chiefs.

LEATHER HELMETS

Nothing has ever equaled the stand-up-ability of these rugged helmets, made of tough top-grain leather specially processed to give strength and heat resistance. With the CAIRNS SELF-ADJUSTING CUSHION LINING, they afford the utmost in protection, comfort and durability.



Made in both Regulation and Drop Brim type—with 8-comb or solid one-piece crown.

Outfitters to Firemen Since 1836

CAIRNS & BRO. INC.

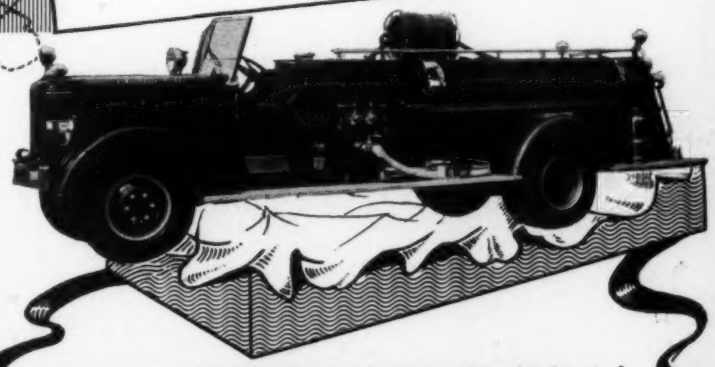
ALLWOOD, CLIFTON, N. J.

DEPARTMENT RECORD BOOKS

Order yours now, in readiness for 1950, from our complete high-quality line:—Loose-Leaf Fire Records, for from 375 to 1500 alarms; Secretary's Record Books, with removable leaves for typing if desired; Secretary's Blank Forms, Notification Cards, Certificates, etc., for every purpose.

Write for CATALOG 331

the BEST Christmas Present Your Community Could Have!



Full approval by the National Board of Fire Underwriters plus dozens of additional built-in features make Central dual-duty fire trucks extra-efficient and ideal for rugged, all-around community service. Custom built or mounted on your choice of chassis. Deliveries in 30—60 days. For a demonstration without obligation, write, wire or phone TODAY!

CENTRAL FIRE TRUCK CORP.

4437 MANCHESTER AVENUE • ST. LOUIS 10, MISSOURI

Chief Paul Heinz Honored

Fire Chief Paul P. Heinz, head of the New Haven, Ct., Fire Department since 1941, has been chosen to receive the New Haven Advertising Club's 1949 Medal of Honor.

The award, the 15th, is presented "in recognition of his achievements in the field of public safety." The formal presentation will be made at a dinner to be announced later. The former winners of the award include Gov. Wilbur Cross of Connecticut; Wm. Lyon Phelps (Yale); Dr. William Verdi (famous surgeon); John Day Jackson (publisher New Haven register); Spencer Berger (outstanding citizen); Charles Kullman (Metropolitan Opera star) and Mayor John W. Murphy (New Haven).

Announcing the award the Club said: "During his five years in command of New Haven's Fire Department, Chief Heinz completely modernized his organization, remodeling the station houses, remodeling and rearranging the companies and expanding the repair shop facilities. Subsequently he established a training school and proving grounds, putting into effect a program of instruction which has been copied by many cities throughout the country. The value of this school was recognized by the 1949 Legislature which appropriated $40,000 for purposes of enlarging its scope and making it available to other departments in the state. His activities in the promotion of fire prevention have brought about a widespread acceptance by the public of its responsibility in this respect. For several years, Chief Heinz has devoted a large part of his out-of-hours time to lectures, demonstrations, motion picture exhibitions before various professional groups, service clubs and civic bodies."

Do You Need an

EMERGENCY FLOODLIGHT TRUCK?

DeLuxe CUSTOM BUILT EQUIPMENT with or without the FLOODLIGHTING FEATURE, All Steel Enclosed

TWO - MODELS

THE SENIOR (3 ton Chassis, 175" Wheel Base)

THE STANDARD (2 ton Chassis, 158" Wheel Base)

Both Models carry complete First Aid and Salvage Equipment as required by the customer.

The SENIOR MODEL—most suitable for cities, is equipped with exterior and interior compartments and seats for the crew. Five built for the City of New York; one with portable floodlighting equipment and four with 10KW power take off driven generator and elevator controlled floodlights. Three built for the City of Philadelphia, with 10KW elevator controlled floodlights.

The STANDARD MODEL—for the average Fire Department, with or without elevator floodlights, equipped with exterior compartments, and the interior equipped with mounted stretchers and seats for the crew. This model in service in many Fire Departments for over 10 years.

Write for detailed construction and electrical specifications, photographs and prices and state your requirements.

Some territory open for agents

Builders of Fire Department Pumpers and Airport Crash Trucks

AFE APPROVED FIRE EQUIPMENT CO.

ROCKVILLE CENTRE • NEW YORK

Ulrich Named on Governor's Committee

Elmer F. Ulrich, Commissioner of Fire of Grosse Pointe Park, has been appointed to the Governor's new Fire Prevention and Protection Committee by Governor G. Mennen Williams.

For the purpose of considering the various factors involved, a conference was held in Grand Rapids on October 21 and 22.

This conference was a follow-up of President Truman's Fire Prevention Conference and its objectives were to make recommendations and outline a program for reducing Michigan's annual Fire Loss.

Chief Koltonski Honored

Fire Chief Alfred H. Koltonski was feted Oct. 6, 1949, by nearly 100 persons upon the occasion of his 25th anniversary as head of the Rutland, Vt., Fire Department.

The chief was lured to a surprise party at the Hotel Berwick, Rutland by a false alarm of fire in the establishment. Arriving after a hurried dash, the chief found fire apparatus cluttering the street in front of the hostelry and, following a hose line which led into the structure, he was met by his friends singing "For He's a Jolly Good Fellow."

The party, which was attended by local and visiting fire officials and civic leaders, was sponsored by the Chamber of Commerce and Rutland Service Clubs. Among the speakers was Chief Daniel B. Tierney, secy-treas. of the International Association of Fire Chiefs.

The Rutland Chamber of Commerce presented the Chief with a 30-30 hunting rifle, and Fire Chief Collin of the Proctor Fire Department presented him with a set of marble book ends.

Chief Koltonski has long been an active worker for the fire service as member of the New England Association of Fire Chiefs and the International Association of Fire Chiefs.

Willey Heads Iowa Firemen

J. B. Willey, of Mount Ayr, Ia., was named president of the Iowa Firemen's Association at its September meeting in Des Moines. Vice-presidents elected are: L. F. Barry, Ames; O. F. Stouffer, Spencer; Leo J. Miller, Denison; Gale Odum, Atlantic, and Kieth McGowan, Clear Lake. Carl H. Fuchs, Des Moines, was re-elected secretary-treasurer.

New York Promotions

As October dawned, Fire Commissioner Frank J. Quayle of New York promoted 26 members of the Fire Department and appointed 143 new Firemen at Engine 31's headquarters, Lafayette St., Manhattan.

Deputy Chief Edward P. Muto was advanced to Deputy Chief of Staff and Operations and assigned to command the uniformed force on Staten Island;

Battalion Chief Patrick G. Griffin was made Deputy Chief and assigned to the First Division; Captains Louis A. Klein, Paul M. Kuveke and Charles L. Leighley were promoted to Battalion Chiefs and assigned to commands in Manhattan. Ten lieutenants were made captains and eleven firemen were raised to lieutenants.

Creedon Made President of Detroit Fire Commission

T. Curtis McKenzie, President of the Detroit Board of Fire Commissioners has resigned, effective November 1, and has been succeeded by Charles Creedon.

Mr. Creedon was formerly Secretary to Mr. Briggs, who owns the Detroit baseball club, as well as former Deputy Secretary of State of Michigan. He is a member of Box 12 Association.

His father, Cornelius Creedon, was at one time Engineer of Engine Co. 12, of Detroit.

Fire Reporter Honored

Harry "Duff" Fenton, 64-year-old Detroit Free Press fire reporter and long time friend of firemen was honored in August, by the Detroit Fire Department for "loyal and distinguished service as a fire writer" with the presentation of a citation scroll and a fire helmet of Engine 8.

The presentation took place at the 27th annual Firemen's Day at Briggs Stadium.

Maine Chiefs Elect Officers

Kenneth Currier of Mars Hill was elected president of the Maine Fire Chiefs Association at the annual fall meeting at Presque Isle on October 18.

Other officers elected are Harold Nickerson of Brunswick, vice president; Roy W. Sturtevant, York, secretary-treasurer; Victor S. Huart, Farmington, sergeant-at-arms.

The Board of Directors includes Louis Benn, Easton; Harry Marshall, Springvale; David Sleeper, Bar Harbor; William H. Clifford, 3rd, Cape Elizabeth, Stanley Turner of Bath, and Z. F. Drouin, Lewiston, retiring president.

The principal speaker at the business session was State Police Lt. Donald Herron who spoke on Safety and Investigation.

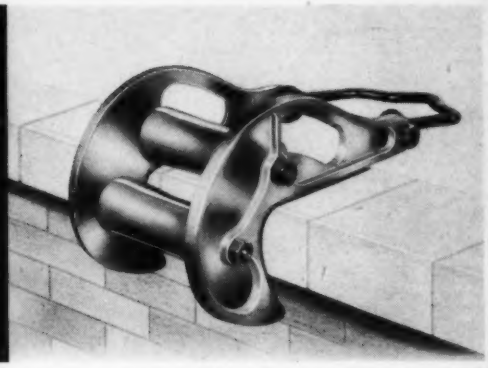
Hotel Association Has Fire Prevention Film

The American Hotel Association has prepared a sound-slide employe training film "Fire Prevention," which has been approved by the National Board of Fire Underwriters. A preview of the new five color, cartoon-type film was held at the Hotel Martinique recently before a large gathering of hotel, insurance and New York Fire Department officials.

The purpose of the film was explained by Chief John J. McCarthy, fire prevention consultant of the New York State Hotel Association, who played an important part in its preparation.

Edward G. Conway, Acting Chief of the New York City Department in the absence of Chief Loftus, speaking to the gathering, declared the film to be "an intelligent and invaluable service to the public, hotel employees and hotel management alike."

NEW "TRUMPET" HOSE HOIST



Here's a small, compact and lightweight hose lift to replace the bulky and cumbersome types now in use. Weighs less than 10 pounds and measures only 13" x 8" x 8". It is strongly constructed of rust-proof Woosterlite alloy, bronze bushings and cold rolled steel pins and rope hook. Hook folds back inside the hoist and accommodates a coil of rope without bulking. Wire brush finish, steel parts painted fire department red.

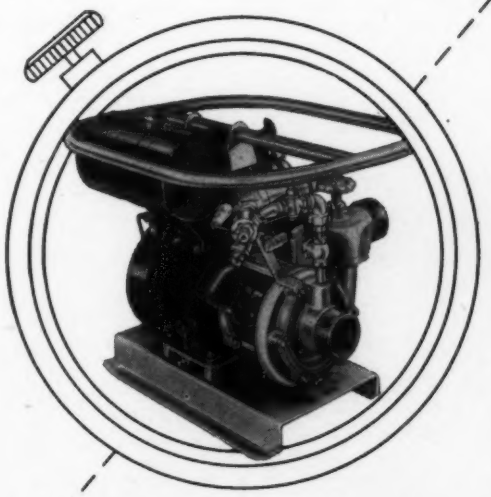
The new "Trumpet" Hose Hoist is the easiest to handle and the safest to use. Each truck should be equipped with one. It's another "Trumpet" feature item.

See your Wooster Brass Representative or write direct for full information.

HOSE BRASS GOODS W&B LINE THE WOOSTER BRASS CO. WOOSTER, OHIO

THE WOOSTER BRASS CO.
WOOSTER OHIO

COMPACT as a watch!



THE compactness of this 3XC booster pump makes it easy to carry on your truck any place.

Delivers 300 GPM to booster tanks. Ideal for pumping out basements—handling dirty water without damage, thus saving wear on your expensive equipment. When connected to booster tank can be used to fight grass fires with truck in motion.

• • •

We are also the manufacturers of the Barton-American Front and Midship Mounted Fire Pumps.

In Canada:
C. E. HICKEY & SONS, Ltd., Hamilton, Ont.

AMERICAN-MARSH PUMPS
BATTLE CREEK MICHIGAN

AM—103

Nail-Polish Fire Knocks Out Thirty-Five Firemen

An attendant of a basement beauty parlor in the lower level of the Hotel St. Moritz, 50 Central Park So., New York City, was pouring nail polish remover from a gallon jar into smaller bottles. Two feet away was a lighted gas burner on which she was melting wax for depilatory purposes.

The fumes of the polish remover were ignited by the gas burner flame, and the attendant dropped the jug, and ran. There followed an explosion and fire.

There were about 20 customers in the Salon de Beaute, as the shop is called, when the explosion occurred, and they promptly panicked. One woman fled to the street with a towel still around her head; others left behind jewelry in their mad dash for safety. About 200 occupants of the lower part of the hotel also evacuated the premises.

The manager said that when the jug dropped, it sounded like an atom bomb. Smoke from the beauty shop's hangings and chemicals rose into the lobby of the 33-story hotel, which contained 1,000 guests, and filtered into its sidewalk restaurant, the "Cafe du Paix," and into Rumplemayer's Restaurant across the lobby, setting in motion more patrons, who were fleeing as firemen, summoned by telephone and box alarms hurried up.

Members of first due companies stretched into the lower level, to be met by a blast of heated gases and near suffocating smoke. A special call was sent for a Rescue Company and masks. A Police Emergency Squad also arrived and mask-equipped firemen and policemen were soon busy bringing up firemen who were laid low by smoke and toxic gases.

All told, thirty-five firemen were treated at the scene for smoke poisoning. The hotel lobby was used as the first aid station where Dr. Archer, Second Deputy Commissioner, and fire department physicians, aided by police, worked over the victims with inhalators and rescuscitators.

The attendant, who with the nail polish remover was the cause of it all, suffered burns and shock.

The wife of the manager said they had never any any trouble with the nail-polish remover before. She said the brands used have an acetone base and are not marked flammable. She was not sure which brand exploded.

Acetone is highly flammable and has a flash point of about 55 deg. F. It boils at 132 deg. F.

Firemen Fete Officials

Connecticut firemen know on which side their bread is buttered. In appreciation of the approval on the part of the Connecticut State Legislature of the 56-hour work week referendum for firemen, a dinner honoring legislators took place in the Hotel Garde, New Haven, on October 11, and attended by more than 300 members of the State Uniformed Firefighters Association.

Guests attending the dinner included John M. Bailey, Chairman of the Democratic State Central Committee; John J. Eagan, State Labor Commissioner; Clarence Baldwin, Chairman of the Republican State Central Committee; Representative Rose Prokop, Representative Melvin Dichter, and Senator Alice Rowland.

The 56-hour work week law, passed at the 1949 session of the Connecticut State Legislature, is a referendum which is placed on the voting machines in the various cities on Election Day and must be approved by the voters before becoming effective.

TOM MAGNER

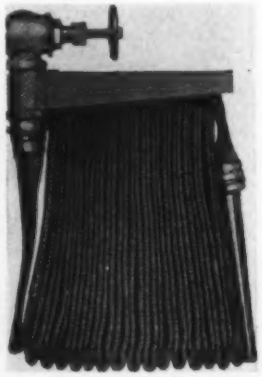
News of the Manufacturers

(*Continued from page 867*)

in this realignment of Mack's sales territory are the Company's already-established districts at Dallas, Houston, Oklahoma City and New Orleans. The territory covered by these districts includes all of the State of Texas, New Mexico, Oklahoma, Louisiana, the State of Arkansas with the exception of Mississippi and Crittenden Counties, and the southern half of the State of Mississippi. It also includes the Republic of Mexico.

Heading Mack's new sales division is D. C. Wheeler, recently elected a vice president of the company. A native of Arkansas and a life long resident of Oklahoma and Texas, Mr. Wheeler in 1939 resigned the position of vice president of the Reo Sales Corporation to become associated with Mack as manager of its Oklahoma City Branch. Since 1942, when he became manager of Mack's Dallas Branch office. Mr. Wheeler has been in charge of the company's sales and service of trucks, buses and fire apparatus for part of Texas, New Mexico and the Republic of Mexico.

On your tours of inspection— be sure to inspect here and . . . here



MUCH OF THE HOSE IN RACKS TODAY, THROUGH INATTENTION and NEGLECT, IS UNSAFE FOR SURE PROTECTION

RENDEIN
Underwriters'
YELLOW LABEL
for indoor protection

Look at some of the hose in pin racks! Ever feel that first fold below the valve? Every once in a while you'll find it's just waiting to burst when water pressure is applied.

That hose is there for protection. If it is beyond that—condemn it! Insist on hose that will protect in emergency.

Tell them to buy "RENDEIN" Underwriters' Yellow Label. Made of pure linen woven with specialized skill and "know how" for over 50 years.

SPECIFY NIEDNER'S "RENDEIN" for indoor fire protection—and for forest and brush fires always SPECIFY "RED CHAIN" the world's finest.

See your fire equipment dealer.

CHAS. NIEDNER'S SONS COMPANY
10-20 JAMES STREET, MALDEN, MASS.

McCarthy Made Gamewell V.P.

Edward J. McCarthy has been elected a Vice President of the Gamewell Company. He will continue in his present duties of General Sales Manager.

Edward J. McCarthy

Mr. McCarthy graduated from Massachusetts Institute of Technology with the degree of B. S. in Electrical Engineering in 1920, and immediately thereafter entered the employ of The Gamewell Company with whom he has since been continuously associated. After a period of training in the factory, he was a Sales Engineer in the Middle West until 1931, when he was transferred to the New England territory. In 1934 he was made District Sales Manager of the New England territory and in 1936 was appointed General Sales Manager of the Company.

New Wooster Catalogue

The Wooster Brass Company, of Wooster, Ohio, has recently issued Catalogue D, which covers their wide line of fire fighting appliances. A number of new items are described, including the Rumsey nozzle holder, Hart cellar pipe with fog head, hose racks and reels, new lightweight hose hoist, smoke ejector, etc.

Twenty-eight pages are devoted to technical and engineering data of particular interest to those in the fire service.

Copy of this new catalogue is available upon request to the Wooster Brass Company.

General Electric Names Barnes

F. B. Barnes has been appointed Sales Manager of communications equipment for the General Electric Company's transmitter division, it is announced by Paul L. Chamberlain, Manager of Sales for the division. Mr. Barnes will have full responsibility for the sales, advertising and sales promotion of land-mobile communications. He is a graduate of Stanford University and joined G. E. in 1937.

September Fire Losses

Property estimated at $49,687,000 burned in the United States during September, according to W. E. Mallalieu, general manager of the National Board of Fire Underwriters. September's fire loss was a decrease of .5 per cent from losses of $49,945,000 reported in September, 1948.

September's loss was .9 per cent under

Janesville

TURN-OUT SUITS GIVE RUGGED SERVICE

Many firemen insist on Janesville quality turn-out clothing because past performance in large fire departments throughout the United States has proved the long wearing heavy duty service which is built into the Janesville garment.

We also feature extra long ¾ firemen boots for tall men. These boots are 2 in. higher in the back and provide an extra 4 in. rise in the front.

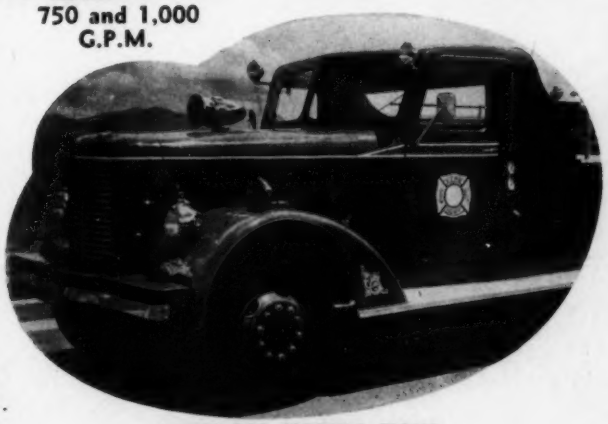
New Safety Fighting Night Fires!

Janesville fire coats, either duck or rubber type, are now available fully "SAFETY CONDITIONED" with amazing "SCOTCHLITE". The moment any light strikes its surface the safety material leaps into action to protect the fireman. "SCOTCHLITE" is composed of millions of tiny glass beads which reflect any light striking its surface with astonishing brilliance. These coats have been approved as "SAFETY CONDITIONED".

Janesville APPAREL CO.
JANESVILLE, WISCONSIN

OREN NEW! BIG JOBS

750 and 1,000 G.P.M.



WRITE FOR SPECIFICATIONS

NEW MULTI-SERVICE PUMPS
NEW HIGH-OUTPUT ENGINES

OREN ROANOKE CORPORATION
ROANOKE, VIRGINIA

losses of $50,150,000 recorded during the previous month of August, 1949.

Destruction by fires for the first nine months of 1949 now stands at $498,227,000, Mr. Mallalieu reported.

This is a decline of 7.2 per cent from losses of $536,923,000 during the first nine months of 1948.

The fire losses for the 12 months ending September 30, total $672,418,000, which represents a decrease of 5.5 per cent from losses of $711,576,000 for the 12 months period ending September 30, 1948. This latter figure, however, was the highest 12-months mark ever recorded by the National Board of Fire Underwriters.

These reported losses under fire insurance policies include an allowance for uninsured and unreported losses.

Mecklenberg County

(*Continued from page* 864)

Junior Chamber of Commerce is reported to have "sparked" the latter gathering, which was addressed not only by Chief Charles, but also by Chief Charles Burkett of the Salisbury Fire Department, head of the State Association and Chief Stanhope Lineberry of the County Police Department.

Chief Burkett introduced the subject of the educational and advisory program for volunteers which the State Association has developed. At the conclusion of the mass meeting, group sessions of persons from different sections of the county were held and preliminary committees named to launch the movement to establish the network of volunteer fire departments throughout the County.

D. G. SPENCER

New Navy Rescue Suit

On September 15, 1949, the Navy demonstrated a new fire-fighting suit to a selected group at the "Fire Fighters School" Naval Damage Control Training Center, Philadelphia, Pa.

It is no secret that the nation's Armed forces have been working for some time to develop fire protective clothing for their personnel. Long ago it was found that asbestos clothing possessed certain inherent drawbacks for use in figthing airplane crash fires and other fires where considerable heat was developed. Last March the Air Material Command of the Army Air Force demonstrated a fire-fighting suit made of aluminum foil which was said to reflect heat and allow its wearer to walk without injury to within a foot or two of a gasoline fire having a temperature of 1,800 deg. F.

The new protective clothing introduced by the Navy reported has some of the characteristics of the suit exhibited at Wright-Paterson Field, Dayton, Ohio, last March, and it is said to overcome many, if not most of the limitations inherent in asbestos protective garments and in other previously designed clothing produced by the Armed Forces.

According to the officers who welcomed the guests at the Fire Fighter's School, (where men are taught the proper use of shipboard fire figthing equipment) one of the difficulties inherent in the asbestos suit is the fact that while it will not burn it will conduct heat. Therefore the suit provides protection for very brief periods of time only. Should the suit be wet upon application of heat, steam will form

"ALL-OUT"
DRY CHEMICAL FIRE EXTINGUISHER

EASIER TO HANDLE — lighter in weight by 7 to 15 lbs.

FASTER IN ACTION — 10′ x 10′ pit of blazing gas and oil *all out* in seconds.

PENETRATES CREVICES—completely blankets wide area.

ELIMINATES RE-IGNITION—works in winds and drafts.

NON-TOXIC, NON-CORROSIVE — harmless to everything but fire—including food.

SAFE ON ELECTRICAL FIRES—non-conductive.

FAN SHAPED NOZZLE — ejects flat stream; screens off flame from burning material; safeguards operator.

Only "ALL-OUT" gives *all out* protection. Demonstration anywhere, anytime. Write today for illustrated data.
Model A-16 illustrated, has 15 lb. capacity Model B-10 contains 10 lbs of dry chemical.

Protects the operator as it kills the fire.

Distributors' inquiries invited.

ALL-OUT MFG. CORP.
2 PARK AVENUE, NEW YORK 16, N. Y.

CAN PAY for ITSELF IN 6 MONTHS
by Eliminating Dry Batteries

5" TRUE parabolic, silver plated reflector; 25,000 c.p. beam; ½ mile range; sturdy metal case; corrosion proof terminals.

Only 72 ounces. Will not spill in ANY position.
Battery change in 10 seconds without returning to factory.
NON-SPILLABLE—RECHARGEABLE

Type G-23
MASTER-LIGHT
for FIREMEN
Police and Watchmen
Write for new Emergency Lighting Bulletin

CARPENTER LIGHTS
200 Master-Light Bldg.
BOSTON-45-SOMERVILLE
MASSACHUSETTS

DRENCH

MAKES WATER WETTER . . . FIGHTS FIRE FASTER

Just mix DRENCH with water in a ratio of 1% by volume and the result is wetter water, greater penetration and quicker action in extinguishing fires. DRENCH increases the effectiveness of water . . . extends water coverage.

Save water . . . property damage . . . and loss of time. Add DRENCH to your water supply. A DRENCH treated fire offers firemen a safeguard against having to return to fires which have broken out anew . . . eliminates long vigils of extra shifts. At the same time, with DRENCH less water is needed . . . less damage done.

NATIONAL FOAM SYSTEM, INC.
111 S. 15th St., Philadelphia 2, Pa.

A NATIONAL FOAM PRODUCT

within the suit and the wearer is faced with the prospect of being "broiled." In other words, the condition is not unlike that of dehydration. For these and other reasons uses of the asbestos suit are limited.

With this knowledge at hand, the Navy developed and equipped its fire fighting personnel with the conventional bunker type clothing consisting of a wool and slicker inter-lining and duck

Slight Casualty in Rescue Suit Test

Lieutenant Commander A. B. Mullen suffered a scorched leg when he demonstrated air crash rescue technique, using the Navy's new protective clothing. He used suit which had previously been through test fires and which proved too brittle, permitting contact burns when the Commander "rescued" the dummy "pilot" from a burning "plane." Despite this scorching Commander Mullen successfully repeated the demonstration without further difficulty, using a new suit.

outer covering, rubber boots and gloves, and a flash hood. This afforded some protection against heat, flame and steam, but still within limitations. Safety, the Navy decided, requires that the wearer always have water protection. Therefore, the Bureau of Ships authorized the Industrial Test Laboratory of the Philadelphia Shipyard to investigate the possibility of developing a suit which would permit the wearer to move effectively through flame and steam.

The clothing demonstrated at the School, according to Captain Harrison, "permits the wearer, to be exposed to conditions far beyond the scope of the perviously existing protective clothing."

Three prôtotype suits were demonstrated on Sept. 15. They differed only in outer covering material. In these suits five layers of material are used. A wool flannel lining nearest the body adds comfort by absorbing heat and moisture from the body as the regular clothing becomes saturated. It also provides some insulation againt external heat and supports the layer of insulation material. The second layer consists of a sheet and fibreglas insulation. This material has no mechanical strength and must be protected by the other layers of the garment. The third layer is a lightweight coated fiberglas cloth vapor barrier. The fourth layer is of the tufted fiberglas insulating material similar to the second layer. It protects the coating on the barrier material and furnishes additional overall insulation. The fifth or outer layer is a non-combustile material possessing considerable mechanical strength and resistance to abrasion.

NEW WAY
to make rescue!

FIRE DEPT. MODEL

Today's laddermen lower victims on the DAVY automatic Fire Escape. Just hook onto ladder rung—place strap under victim's arm pits—lift out of window and the DAVY does the rest. Lowers victim slowly and leaves ANOTHER strap to lower second victim. Any number of people can be lowered FASTER and SAFER with NO RISK to either victim or fireman.

HOTELS and INSTITUTION MODEL

Proven in over 40 years' use in Europe and America. Will lower person 20 stories in about one minute—soon as one person reaches ground another strap is ready for second person and so on—FASTER than raising a ladder—safer than any other rescue device—fully automatic—lasts for years and years. Recommend it now before catastrophe occurs!

DEALERS

Fire Depts. everywhere are in immediate need of the "DAVY" Automatic FIRE ESCAPE. Sell one model to all fire depts., sell another model to hotels, etc. Write for dealer proposition.

DAVY AUTOMATIC FIRE ESCAPE CO.
Colvin Station, Box 51, Syracuse 5, N. Y.
Canadian Dealer:
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BODY-GUARD BUNKER SUITS
FOR COMFORT & PROTECTION

WE ARE DISTRIBUTORS FOR
SIREN BOOTS

We have been supplying **FIREMEN'S CLOTHING** for over 25 years.

Any fireman can have a catalog by writing—

BODY-GUARD MANUFACTURING CO.
ST. JOSEPH - - MISSOURI

PACIFIC PUMPERS
famous for power plus portability
now in a range of models for your exact fire protection needs!

NEW AIRCOOLED MODEL S—Choice of volume up to 36 g.p.m. or pressure up to 325 p.s.i. Weight approximately 85 lbs.

WRITE FOR SUGGESTIONS on application of portable equipment to your fire protection problem, with full specifications on appropriate models of the Pacific Pumper. No obligation.

ACCESSORIES, TOO! A complete line of hose, nozzles and other equipment and accessories used with portable pumpers. Ask for catalog.

PACIFIC *Marine Supply Co.*
FIRE EQUIPMENT DIVISION
SEATTLE 1, WASHINGTON

Exclusive for

FIRE DEPARTMENT SUPPLIERS

ARE the chiefs whom you supply satisfied with the old or are they willing to advance with the times? We now have available a new line of **FLEECE LINED RUBBER COATS & PANTS.** They resist acid, grease, and oils and will satisfy the chief's budget. Write today for a sample garment with no obligations attached. If not satisfied, you may return them within thirty days. Every garment is backed by our thirty-two years of manufacturing experience.

ALB RUBBER COMPANY

366 SOMERVILLE AVE.
SOMERVILLE, MASS.

You will be if you install a Fairbanks-Morse generating set!

These standby power units have been proved in performance on farms, airports, camps, in hotels, theaters, hospitals, and many other installations.

Models are available in A.C., D.C., and A.C.-D.C.—with manual, remote or automatic controls—in capacities from 350 to 35,000 watts. See your local Fairbanks-Morse dealer, or mail the coupon today!

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600 S. Michigan Avenue 88-11
Chicago 5, Illinois

Gentlemen: Please send complete information about generating sets for standby service.

Firm Name.....

Address.....RD.....

City.....State.....

Three materials were used for the outer layer in the three suits shown at the School. The 90% asbestos cloth was used as the outer layer for the first suit. Heavy-weight fiberglas was used for the second prototype suit. The third material was an asbestos substance called "Asbestone." It was evaluated along with the 90% asbestos suits and the fiberglas fabric as a possible outer material.

The latest type suit demonstrated at the School is in three sections and is used in combination with the Navy's Standard Oxygen Breathing Apparatus. The OBA is said to provide sufficient oxygen for 30 minutes to one hour, depending upon the physical activity required.

The trousers, with attached boots, are put on first, followed by the OBA. The parka-type jacket with gloves attached goes on next, and the hood completes the suit. The shoes and gloves are attached to reduce to a minimum the number of openings for entrance of hot gases or vapors. Provision is made for attaching a life line to the metal harness in the trousers. The hood covers and protects the face piece of the OBA and provides additional protection against flame and falling debris.

Wearing this equipment men have entered and remained in a steam-filled compartment more than 10 minutes and as attested by the demonstrations, have remained in large-scale gasoline spill fires, performing normal rescue evolutions, with ease and safety.

The actual time required to get into the suit, according to Captain Pittman, should not exceed five minutes.

In the tests conducted at the School, men rescued dummy pilots from a plane doused with 100 gallons of gasoline and ignited producing a fire, which developed heat up to 2,000 deg. F. They also remained in a simulated steam-filled engine room space, heated to 180 deg. F. for three minutes.

Propane Gas Blankets Area

Escaping gas laid an earth-clinging fog over a section of the city of Salisbury, N. C., Monday, September 26, for more than six hours. Salisbury fire department stood by until the danger was past.

A leak in the Duke Power company's 15,000 gallon propane gas tank was repaired in the early afternoon. The heavier-than-air gas, highly explosive, had covered the earth to a depth of several feet in some spots.

City firemen were called on to stand by in case the explosive cloud was ignited immediately after the break occurred about 8 a.m. Two fire trucks stood ready with lines connected until the leak was finally repaired at 2.20 p.m.

Firemen and power company officials found it necessary to evacuate two families from their homes adjacent to the tank. Guards were posted in a perimeter surrounding the tank to keep out people with lighted cigarettes and other fire. Two blocks of North Long Street were barricaded to prevent automobiles from entering. All families in the vicinity were alerted for possible explosion.

Two gas experts from Charlotte arrived on the scene to direct operations before the leak was repaired.

(*Continued on page 897*)

ACME . . . *the Only Gas Mask With the* "PICTURE WINDOWS"

You never have that "jammed-in" feeling, wearing the Acme Full-Vision Gas Mask. Its patented, larger lenses are like picture windows, giving you full natural vision for that safe, unconfined feeling. When you walk, you can actually see your toes without bobbing your head. This factor alone makes Acme outstanding among gas masks . . . well worth looking into.

Write for the complete story on Acme Gas Masks for fire fighting.

ACME PROTECTION EQUIPMENT COMPANY
3037 West Lake Street, Chicago 12, Ill.

INVINCIBLE NOZZLES

with HOSE MANIFOLD

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Just another type —one of many— made by pioneers in nozzle manufacture.

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"All American Choice"

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Seldom the lowest priced but always the best.

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F. N. McINTIRE BRASS WORKS
Successors to A. J. Morse & Son, Inc.
Boston, Mass.
1837 — 1949

FREE *Catalog*

BRONZE TABLETS

for

HONOR ROLLS

MEMORIALS • AWARDS • TESTIMONIALS

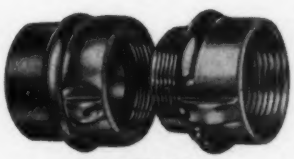
COMMEMORATIVE PLAQUES

Every fire department . . . every fire house . . . should keep on hand this big 48-page catalog, illustrating 150 suggestions for handsome, imperishable, solid bronze tablets. Sent free—ask for Catalog FE1.

TROPHIES and MEDALS, TOO!

Special catalog illustrates 900 cups, trophies, medals, etc. suitable for presentation as prizes and awards in all kinds of contests, or for testimonial purposes. Sent free — ask for Catalog FE2.

INTERNATIONAL BRONZE TABLET CO., INC. 350 WEST 22nd ST. NEW YORK 11, N. Y.



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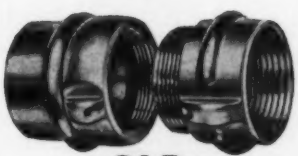

OLD

In addition to Rocker Lug —a New Male Protector Ring assures greater thread protection. Higbee thread Indicator. For the BEST specify AKRON STYLE 92 DROP FORGED, ROCKER LUG, ROCKER RING COUPLINGS.

always specify AKRON

AKRON BRASS MFG COMPANY INC.

Wooster, Ohio

Miami Fire

(*Continued from page* 853)

threw up dikes of sand, sawdust, newspaper and anything they could get their hands on and kept water from this section.

Firemen labored to prevent not only water but smoke and heat from penetrating the mechanical and editorial departments. In his report Chief Chase says, "You will note (on the plan) the door of the warehouse opened into hallways of the main part of the plant. By use of smoke ejectors and fog, playing west into this door, we were able to keep down the smoke and heat so that the employees working in the plant were not hampered in the least. Very little water actually went into the main part of the plant although we were at times throwing as much as 3,500 gallons a minute into this building in the form of fog streams. We provided gullies with used paper, etc., to divert the water down through two elevator shafts. Pumps obtained from the telephone company and lighting companies were used to keep the water from banking up into the press-room, which is below grade, and would have been materially damaged had the water reached the machinery.

Conclusions

Although the particulars of the investigation into the cause and extent of this costly fire have not been released it is possible to draw certain conclusions from the data in hand. These facts seem self-evident:

1) The publishers of the paper, having an excellently designed and constructed warehouse, placed all their confidence in the *building*, forgetting that the contents were combustible—and worse, that a little fire might cause great loss.

2) Stock was stored (a) to invite spread of fire, (b) to make most difficult the work of the firemen, (3) to invite maximum water damage, and (4) to invite minimum salvage operations.

3) Housekeeping was not maintained at high level and there was negligence. No provision appears to have been made for water run-off, or to so break up the large storage area that any fire that might eventuate, could be confined to a small part of the floor areas.

5) There were no automatic sprinklers; no automatic fire detection or fire alarm systems in the storage building. Communication facilities and watch service appear lacking.

6) The practice of using a wooden wastepaper and trash cart and of storing it, filled with waste, against combustible exposures was an invitation to the careless smoker, if not to the arsonist.

7) The first aid fire extinguishers used at the outset on the fire were too small for the task of extinguishing the fire in the container, and in the paper rolls.

8) Indications are that the employees were not trained in fighting fire and operation of first aid fire equipment.

9) There was a serious delay in calling the fire department. The fire evidenced the need of training employees on the need of calling the fire department immediately—and of calling them through proper channels.

10) There was also delay in notifying the department upon its arrival, just where the fire was located in the plant—exemplifying another need for employee training.

11) The fire demonstrated the need of

BRAXMAR BADGES

Standard since 1879

THE BEST BADGE MONEY CAN BUY

STANDARD WITH FIREMEN EVERYWHERE. SUPPLIED IN NICKEL, CHROME, GOLD PLATE AND ROLLED GOLD.

If you have not yet received our latest circular, we'll be glad to mail one on request.

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President

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216 E. 45th Street, New York 17, N. Y.

FOR FOREST FIRE FIGHTING

COMBINATION BRASS NOZZLE FOR SUSTAINED STREAM OR LONG RANGE SPRAY
COMBINATION BRASS HANDLE FOR CARRYING TANK AND FOR HOLDING PUMP
EXTRA HEAVY TANK IS FORM FITTING TO FIT BACK SNUG AND FIRM
ALL TANK JOINTS LOCKED AND SOLDERED
BUILT STRONG
FORM-FITTING, VENTILATED SHIELD GIVES A CONSTANT CIRCULATION OF AIR BETWEEN WATER TANK AND CARRIER'S BACK. IT PROTECTS THE BACK FROM THE COLD WATER AND MOISTURE IN THE TANK AND KEEPS THE BACK WARM AND DRY.

Wardens, Rangers, Municipal, Volunteer, Industrial Fire Companies and other fire fighting units—this has been a forest fire year.

BE PREPARED: Immediate delivery on the following: Indian Fire Pumps shown above (90-G Galvanized, 90-B Brass), Drench, Portable Pumps, Smoke Masks, Forestry Fire Hose and other fire fighting equipment.

Write for new catalog, Dept. F-E.

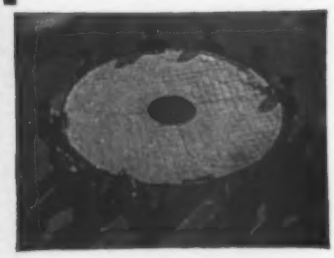
FIRE-END PRODUCTS
19-21 Beekman St., New York

In the Fire Service—

THERE'S NOTHING "JUST AS GOOD"

The fire service prides itself on buying "the best," everytime. *INSIST on ATLAS*—everytime—and you'll get the *best* life net!

ATLAS LIFE NETS



ATLAS SAFETY EQUIPMENT CO., INC.
27 WARREN ST. NEW YORK 7, N. Y.

(a) water fog in large volume with large fog nozzles as well as small; (b) adequate masks or other breathing equipment and smoke removers; (c) power tools for forcible entry and other operations (overhauling, wrecking, etc.); (d) ample equipment for salvage operations, i.e.: de-watering pumps, material for dikes and dams and salvage operations; (e) adequate lighting equipment; and (g) ample first aid facilities.

Heavy Damage Usual at Newspaper Plant Fires

Last June at its Twenty-first Mechanical Conference, the American Newspaper Association devoted an entire session to a symposium on protecting newspaper plants from fire. The chairman was Roi B. Woolley, assistant editor of FIRE ENGINEERING; the speakers were Chief of the Chicago Salvage Patrol, Frank McAuliffe; former Chief of the New York Fire Department, Harold J. Burke, and publishers of two newspapers whose plants had been destroyed by fire.

At that symposium these facts were brought out by Chief McAuliffe: "The storage of paper is well feared by firemen all over the country. We have had experiences where paper involved in fire soaked up water, and dropped heavy stocks through floors and pushed out walls. Paper, of course, is no respecter of types of construction in time of fire. The same damage can occur to buildings of fire resistive construction as well as to those of ordinary construction. Only recently we (Chicago Fire Department) lost five men on the North Side in a paper storage warehouse where they had gone back after the fire rekindled and the floors suddenly collapsed under the weight of soaked stock, carrying five men to their death."

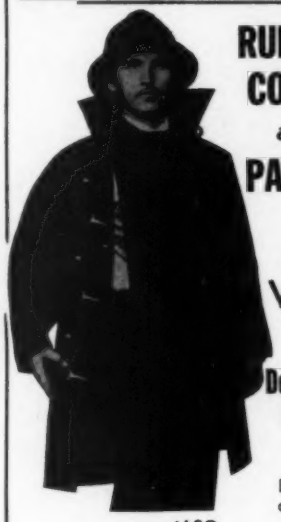
Speaking about a million dollar newsprint fire that occurred in Chicago some years previously, Chief McAuliffe said: "It behooves men who are responsible for the storage of such paper stocks to be careful in their storage. In that particular fire, thousands of dollars would have been saved had the stock been on nothing more than a 2-inch plank. That would have saved it because the water never did exceed one-half inch in depth on those floors." And he added—"Then, too, in their haste, and perhaps desire to pack additional amounts of paper, they neglected aisle spaces."

Chief Burke contributed this thought: "The danger of large run-off, particularly in newspaper plants where equipment of such high value is susceptible to water damage, is due to the fact that even an insignificant fire may cause a tremendous water loss and force suspensions of operations for an unreasonable period. Water damage on large rolls of paper quickly ruin them." He added this statement, speaking of fire extinguishing equipment: "In the fire fighting field, nothing is truer than the adage that you cannot drive a spike with a tack hammer, and you cannot expect to put out a fire with insufficient equipment or improper equipment."

Chief Burke also pointed out that Class A materials are not cooled appreciably by carbon dioxide and "consequently you have to keep the blanket of gas on the material long enough for that impounded heat to dissipate. "That is another fault," he went on, "that an inexperienced operator may run into. He is too apt to shut the fire extinguishing operations down before he has accomplished his mission."

Describing the LaSalle (Ill.) *Tribune*

MORNING PRIDE



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All Wool

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Coats Lettered on Backs

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MITTENS • SUSPENDERS

See Your Morning Pride Dealer or Write

MORNING PRIDE MFG. CO.
1986 Home Avenue, Dayton 7, Ohio

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FIRE HOSE DRYER

- Dries hose in a few hours.
- Saves space — fits in any corner.
- Keeps all hose ready for service.
- Makes good hose last longer.
- Reduces new building costs.
- Improves station design.
- Dries fire clothing, too.

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575 East Milwaukee St.
DETROIT 2 MICHIGAN

Emblem Name Plate

Your Fire Company deserves to be known.

This distinctive name plate is cast aluminum with polished letters and trim. Red background.

Name plate is 2½" high and 12" long. Emblem is 4" in diameter.

Specify Fire Dept. or Fire Co. Not more than twenty letters in name.

FOR QUICK IDENTIFICATION AT A FIRE. NAME PLATE LIGHT with red or blue "Plexiglas" lens in place of emblem.

Consult your dealer, or write us, including his name.

FIRE AND POLICE LIGHTS BY

ARGUSLITE CO.

BLUE RIDGE SUMMIT, PENNA.

Fires won't wait while you struggle with unwieldy hose.

That's why experienced firefighters have preferred *Hewitt Fire Hose* for over 75 years!

They know it is light and flexible for fast action . . . yet rugged for long life. They know, too, that its quality construction minimizes elongation and twisting . . . assures high burst-resistance.

Learn how *Hewitt Fire Hose* can help you. Write today.

HEWITT RUBBER DIVISION
240 Kensington Avenue, Buffalo 5, New York

HEWITT FIRE HOSE

HEWITT-ROBINS INCORPORATED

fire, Peter Miller, publisher, added this observation: "The fire was discovered by the janitor. . . . He looked through a doorway and saw flames about a foot high burning along . . . the wall of the office. He went to get one of the 14 fire extinguishers in the building and apparently in his haste did not get the nearest one. But having secured an extinguisher he returned to fight the fire, but the fire had grown so fast that he was unable to get close enough to it to even discharge the extinguisher. He then went through another doorway, got hold of a telephone and reported the fire."

Relating the story of the fire that wrecked the Springfield (Mo.) Newspapers, Irvan Darnall, mechanical superintendent, said: "According to records . . . the cause of our fire is unkown. I am afraid whoever made that report is being a little kind to us. We are of the opinion that the record should read *"cause of fire—negligence!"* The fire seemed to originate in the boiler room, following a line of waste paper up a stairway into a room just back of the pressroom, which was filled with loose waste paper intermingled with oily discarded wiping rags.

Breathing Equipment Serves in Chlorine Emergency

About 7:00 P.M., on a June evening, the operator on duty at the Ridgewood, N. J., sewage treatment plant noticed what appeared to be smoke coming from one of the frame buildings Thinking that fire had broken out, he immediately ran into the building only to discover that what appeared to be smoke was in reality escaping chlorine gas.

As the fumes involved other buildings, the superintendent of the plant who was called had time to make only one telephone call, to the fire department, before being driven out of the plant grounds altogether. Atmospheric condition was humid, with intermittent rain and variable air currents.

In the ensuing five hours it was necessary to evacuate residents of adjacent residential sections, as the gas was carried one way and another, but thanks to the help of two police departments with two-way radio communication, no persons sustained injury. By midnight, all persons evacuated had been restored to their homes. Medical attention was required for the operator and a passerby, both whom inhaled the "smoke."

Fire Department personnel played an important part in the episode. Equipped with modern equipment utilizing compressed air, they entered the chlorine room, disconnected the ruptured cylinder and immersed it in a nearby flume. None of the firemen suffered any ill-effects from the chlorine.

Following the investigation into the causes of the rupture, these suggestions (among others) were offered by a representative of the Chlorine Institute which conducted the research:

1. For oxygen deficiency conditions, it is unsafe to rely on mask equipment unless it features a portable and independent supply of air.

2. Such equipment necessarily must be housed in an independent and comparatively remote building, where it will be accessible in an emergency.

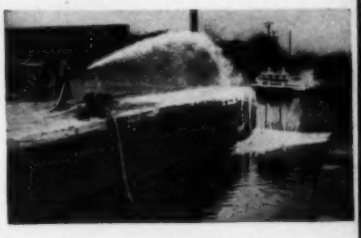
FIGHT FIRES 3 WAYS with a HALE FZZ!

• *Solid Stream* • *Fog* • *Foam*

With a ready-for-use Hale FZZ you can fight fires not only with solid stream and/or fog, but also with foam —an extremely valuable weapon against gasoline tank truck fires. (*Foam proportioner is built in, if specified.) The easily portable FZZ can be mounted in any apparatus, making it possible to fight fires while apparatus is in motion, using booster tank for source of water. CAPACITY 60 G.P.M. at 90 lbs. pressure; 150 G.P.M. at 30 lbs. pressure.

Nip Brush Fires in the Bud!

Pumping Solid Stream and Fog.



Here's an FZZ Pumping Foam

*Write for FZZ folder and Bulletin on How to Use Foam with an FZZ.

HALE FIRE PUMP COMPANY
CONSHOHOCKEN, PA.
Fire Pumps in all Standard Capacities

Rate $6 per inch less 10% for three or more consecutive insertions.

Classified Advertisements

Closing date for copy 25th of month preceding date of issue.

FIRE APPARATUS SALES REPRESENTATIVES

with experience to meet present keen competition, wanted by Manufacturer of quality fire apparatus. Territories are available for the right men in

NEW YORK	KENTUCKY
VIRGINIA	TENNESSEE
WEST VIRGINIA	GEORGIA
N. CAROLINA	OHIO
S. CAROLINA	DELAWARE

Write to Box 95, c/o FIRE ENGINEERING, 24 West 40th Street, New York 18, N. Y., stating territory interested in, all qualifications, previous experience, etc.

WANTED

Fire Equipment Dealers to sell Morning Pride Rubber and Canvas Rubber Fabric Fire Coats and Fire Pants, All Wool Detachable Liner, Mitts and Suspenders.

Write today MORNING PRIDE MFG. CO. 1986 Home Ave., Dayton 7, Ohio.

FOR RENT
NEW 750 GPM PUMPER

New truck with 240 horsepower motor, never in service, built for City unable to accept due to lack of finances. Will rent monthly or annual basis with option of applying rent on purchase price. Write to Box 100, c/o FIRE ENGINEERING, 24 West 40th Street, New York 18, N. Y.

FOR SALE

American-LaFrance 75 foot aerial tiller truck. Condition fair. Make offers to:

W. F. SCHUEHLER
Fire Department
Cortland, N. Y.

"FIRE ENJINES"

Famous WILL-O-LINE 19th Century horse drawn models in ½" scale. LaFrance Combination $8.50. Rumsey Reel $2.00. Amoskeag Steamer $6.50. Others. Complete parts and instructions. Write for circular.

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Progressive Distributor with large clientele located in southwest desires fire equipment lines and accessories of all types. Write us your offers.

Box 85, c/o FIRE ENGINEERING
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WANTED

Dealer—Distributors to sell fire apparatus manufactured by well-known Factory. Also popular line of high grade fire hose. Prompt Delivery. Attractive proposition. Address Box 15, c/o FIRE ENGINEERING, 24 West 40th St., New York 18, N. Y.

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VOLUNTEERS! BUFFS! FANS!

Something different. Prints of early American fire-engines on party coaster-ashtray combination. On red background with white circular flange. Can be personalized with a name in gold stamping. Ideal for home, clubs and volunteer units. $1.20 per dozen plain, $1.75 per dozen personalized. Write for special prices for dinners and other social activities.

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15 Jacobus Place, Bronx 63, New York

FIREMEN TURNOUT COATS AN EXCELLENT VALUE

Unused Government Surplus, 100% Waterproof. With Removable, All Wool Blanket Lining. Rust-Proof Buckles. Coat is Durable, and easy to work with. Really Worth $22.00. Sizes 42-44. Price only $14.95 each. For Circular write:

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160 Bush St., Bronx 53, N. Y.

ATTENTION: FIRE FIGHTERS

You can now replace your ordinary door bell button with an attractive and realistic miniature fire alarm box. Workable button in center rings door bell. Price: $1.00—cash, check or money order. Send today.

JAMES R. JACKSON
147 East Cayuga St., Oswego, New York

FOR SALE

1939 American-LaFrance Double Bank City Service Hook & Ladder Truck, fully equipped. Over 300 feet of serviceable ladders, including a 50-foot extension ladder. Information may be had by contacting either the CHIEF, BALDWIN FIRE DEPARTMENT, or BOARD OF FIRE COMMISSIONERS, BALDWIN FIRE DISTRICT, Baldwin, Long Island, New York.

FOR SALE

1926 American-LaFrance Ladder Truck—Perfect running condition, fully equipped, including Life Net, 245 feet of ground ladders. May be inspected. Reasonable offer considered. Contact:

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FOR SALE

1931 Brockway City Service Hook and Ladder truck, in good condition. Asking $3,000. For further information write to:

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FOR SALE

10 ft. lengths hard rubber suction 4½ inch brass N.S.T. Per length	$25.00
Roof Ladders	$20.00
Universal Hose Spanners	$0.25
Cotton Duck Hose Straps	$1.00
Fog & Spray Tips	$1.50
Adjustable Hydrant Wrenches	$1.25
Double Males NST	$1.00
2½ x 2½ x 2½ one capped NST	$2.00
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Of FIRE ENGINEERING, published Monthly at New York, N. Y., for Oct. 1, 1949.
State of New York } ss.:
County of New York }

Before me, a Notary Public in and for the State and county aforesaid, personally appeared I. H. Case, who, having been duly sworn according to law, deposes and says that he is the Business Manager of the FIRE ENGINEERING and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the act of August 24, 1912, as amended by the acts of March 3, 1933, and July 2, 1946 (section 537, Postal Laws and Regulations), to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, Case-Shepperd-Mann Publishing Corp., 24 W. 40th St., New York 18, N. Y.; Editor, Fred Shepperd, 24 W. 40th St., New York 18, N. Y.; Managing Editor, Fred Shepperd, 24 W. 40th St., New York 18, N. Y.; Business Manager, I. H. Case, 24 W. 40th St., New York 18, N. Y.

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3. That the known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages, or other securities are: None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

I. H. CASE, Business Manager

Sworn to and subscribed before me this 23rd day of September, 1949.
[SEAL] WILLIAM H. TOPHAM, Notary Public
(My commission expires March 30, 1951)

Propane

(*Continued from page* 892)

The gas, propane, was escaping through a leak in a pipe that connected the tank to a release valve.

The gas, originally liquid in the tank but changing into a white gaseous form on contact with the air, narrowly missed spreading to the railroad tracks, less than a hundred yards away.

D. G. SPENCER

The Military Can Do No Wrong

This is an item that perhaps belongs on the editorial page. It rates it—and the attention of every conscientious fire officer.

Late last summer there was a forest fire at Camp Edwards, in the Cape Cod area. It was said to be caused by practice shells fired by military units in training in the area, and it covered between 2,500 and 3,000 acres, menacing many homes.

The fire didn't receive national publicity, but fire fighters and citizens in the neighborhood, remembering that the fire came at a time when the Governor of Massachusetts had officially closed the woodlands, because of the drought and ensuing fire hazard, raised a number of questions.

Why, if the Governor knew the conditions, and the military officials likewise—why they asked, did the latter feel at liberty to deliberately run the risk of fire by holding shell fire practice? Records indicate that fires have been started in the past by similar practices.

Also, knowing that fire might ensue, as long as the military were intent on going ahead, why were not proper measures taken to warn the town or state fire protection authorities, or to prevent such firing?

Incidentally the question arises, who is to pay the expense of property loss and of the costs to control the woodland fire, which weren't insignificant. This is an interesting question for the Army Command, and perhaps Secretary of Defense Johnson!

WM. B. ELY

Permanent Flame-Proofing

Cotton and rayon fabrics which won't burst into flames when lighted, yet look the same and feel the same, should be available within the next three months.

No matter how many times these materials are washed at home or cleaned, they can now be made to stay fireproof when treated with a new chemical announced by the Dupont Company.

The exact chemical composition of the compound is being kept a secret because patents have not yet been issued, but it is known that the chemical is a solution of titanium and antimony salts.

Titanium dioxide and titanium hydroxide, and antimony oxide and antimony oxychloride are compounds which are known to produce a flame-proofing effect.

It is claimed that the compound reacts chemically with the molecule of cellulose in rayon or cotton, but does not change the size of the fiber. Nor does it make the fabric stiff or hard.

Expected to be particularly good for curtains and bedspreads, dangerous fire hazards in the home, the new discovery is trade-named "Erifon."—SCIENCE NEWS LETTER.

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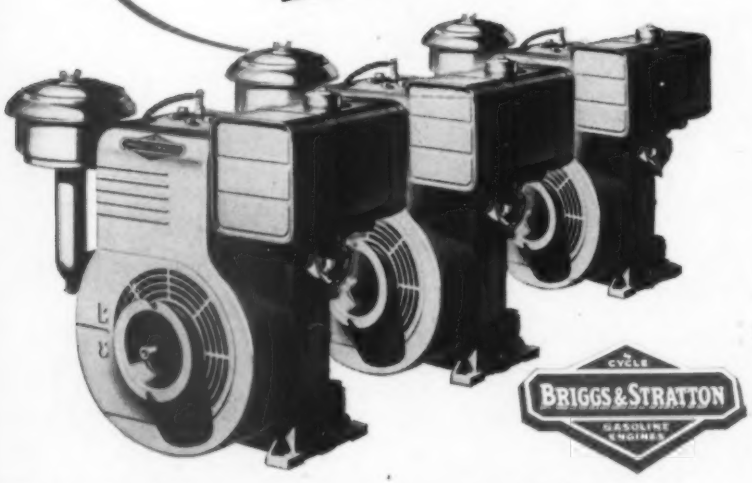

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NOVEMBER, 1949

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